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DAIRY FARM MANAGEMENT BUSINESS SUMMARY NEW YORK 1978

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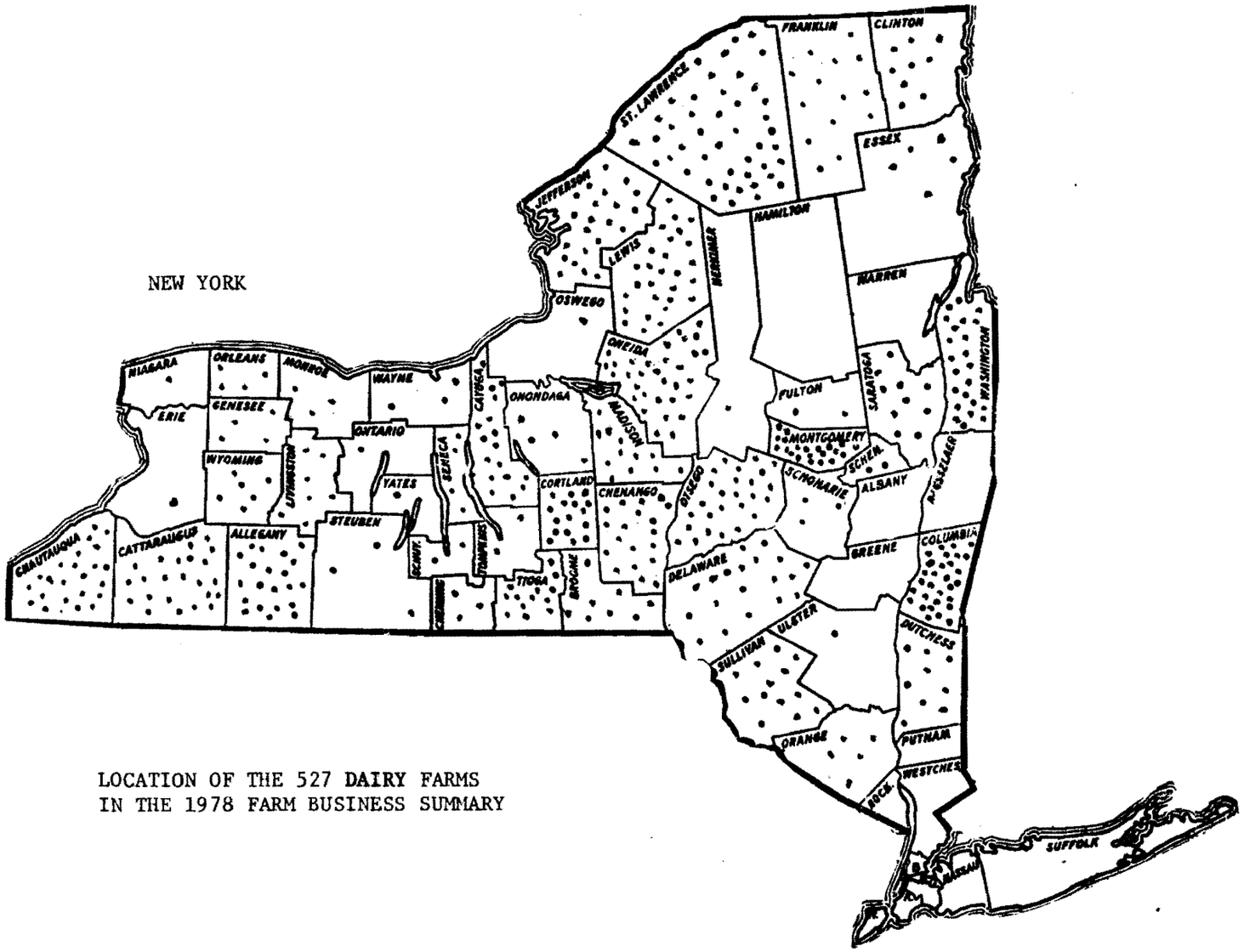

LOCATION OF THE 527 DAIRY FARMS
IN THE 1978 FARM BUSINESS SUMMARY

INTRODUCTION

Farm business management projects are a basic part of the management extension program in New York State. The College and the County Extension staffs cooperate in sponsoring these projects. In 1978, about 700 dairy farmers participated in these management projects. Each dairyman submitted farm business record information to the College for summary and analysis. These records provide the basis for extension educational programs and also data for applied research studies.

The Extension agents organized the cooperators and collected the records. Regional summary reports were prepared by the college staff for use by the agents in winter meetings with farmers. Each cooperator received a summary and analysis of his business, and a regional report for use in studying his operation. These extension activities aim to help the operators develop their managerial skills and solve business management problems.

The records from all regions of the State have been combined for use in an applied research study of the effects of price and technological changes on dairy farm incomes. This research also provides current farm business information for use by dairymen, Extension agents, teachers, agribusinessmen, policy makers, and others concerned with the New York dairy industry.

A total of 527 farm business records have been included in the general dairy summary for 1978. These 527 farms do NOT represent the "average" for all dairy farms in the State. Participation was on a voluntary basis so not all areas or types of operations were represented (see map on opposite page). The 527 farms do represent a good cross section of better than average commercial dairy farm operators in the State.

1978 Regional Summary Publications

Region	Publication	Author(s)
Eastern Plateau Region	A.E. Ext. 79-8	S. F. Smith
Southeastern New York	A.E. Ext. 79-12	S. F. Smith, G. J. Skoda
Northern Hudson Region	A.E. Ext. 79-18	S. F. Smith
Columbia & Dutchess Counties	A.E. Ext. 79-13	S. F. Smith
Oneida-Mohawk Region	A.E. Ext. 79-17	E. L. LaDue
Western Plateau Region	A.E. Ext. 79-10	G. L. Casler
Northern New York	A.E. Ext. 79-11	C. A. Bratton
Western Central Plain	A.E. Ext. 79-16	W. A. Knoblauch
Central New York	A.E. Ext. 79-20	W. A. Knoblauch
Central Plain Region	A.E. Ext. 79-21	R. A. Milligan, L. N. Davis

Acknowledgements

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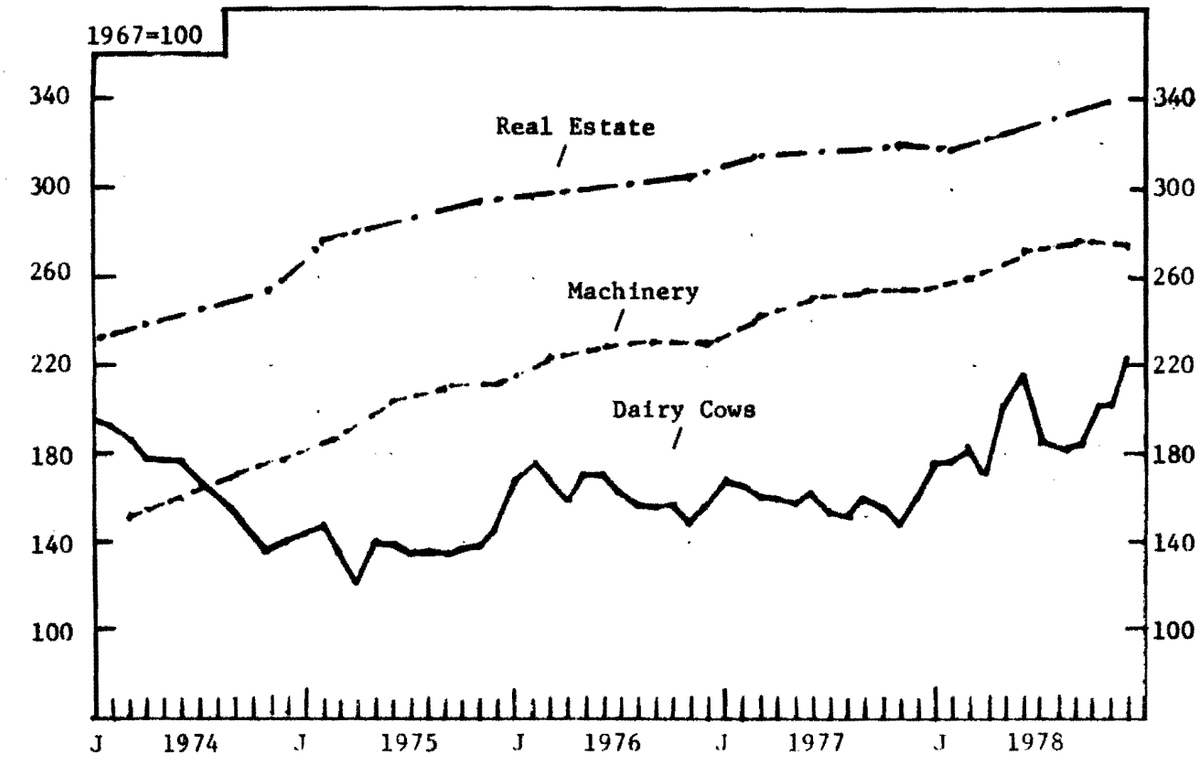
Prices

VALUE OF N.Y. FARM REAL ESTATE, DAIRY COWS & MACHINERY
1974-1978



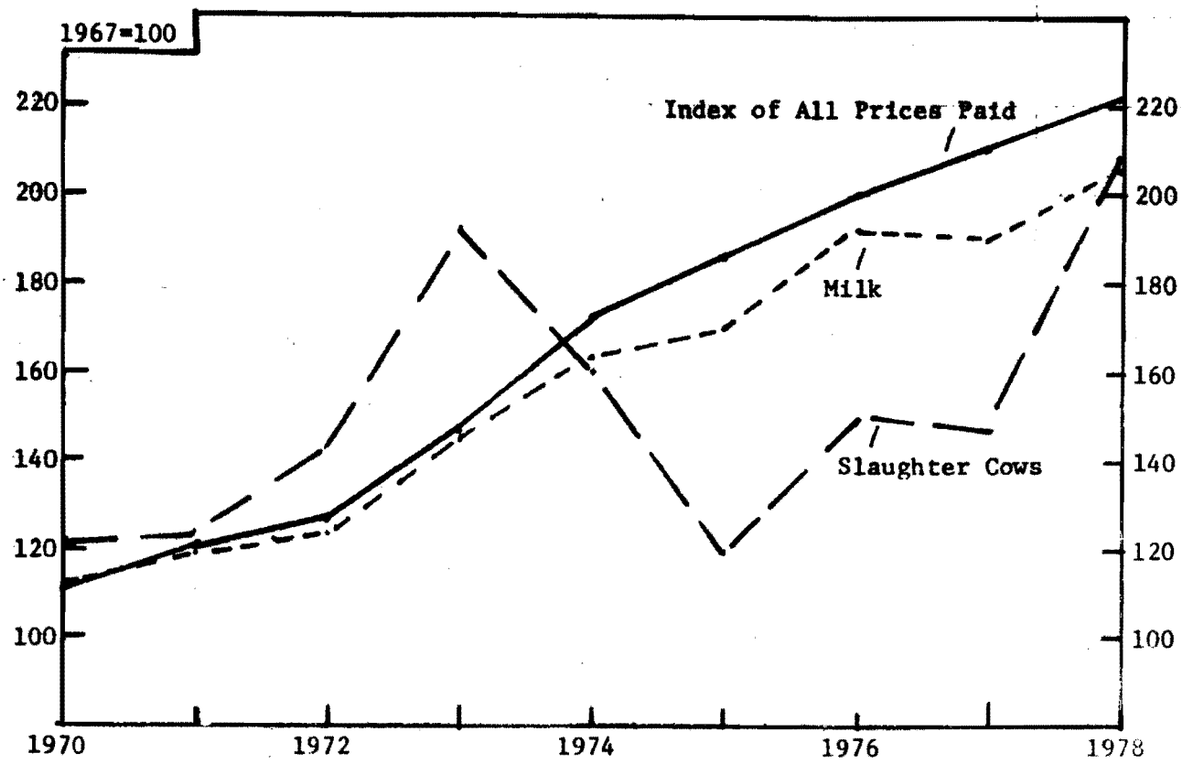
Price changes affect the inventory values on New York dairy farms. Real estate and machinery prices have risen steadily during the past five years. Dairy cow prices peaked in January 1974 but dropped sharply during the year, rose gradually during 1975, 1976 and 1977 and then jumped 39 percent in 1978. Dairy cow prices continued upward in 1979 and were reported at $1,000 for April, or 45 percent above the December 1978 price. From 1967 to 1978, real estate values increased 239 percent, machinery prices 176 percent, and dairy cows 123 percent.

Table 1. REPORTED VALUES OF DAIRY FARM INVENTORY ITEMS, 1974-1978

Year*	N.Y. Dairy Cows Value/Head	N.Y. Dairy Cows 1967=100	Machinery 1967=100	N.Y. Farm Real Estate Value/Acre	N.Y. Farm Real Estate 1967=100
1974	(Dec.) $435	140	(Dec.) $185	(Nov.) $472	254
1975	(Dec.) 450	145	(Dec.) 222	(Nov.) 543	294
1976	(Dec.) 485	156	(Dec.) 233	(Nov.) 562	304
1977	(Dec.) 495	160	(Dec.) 253	(Nov.) 593	320
1978	(Dec.) 690	223	(Dec.) 276	(Nov.) 629	339
Percent change:					
1974 to 1975	+ 4%		+20%	+16%	
1975 to 1976	+ 8%		+ 5%	+ 3%	
1976 to 1977	+ 3%		+ 9%	+ 5%	
1977 to 1978	+39%		+ 9%	+ 6%	

* Latest figure reported for year, i.e., November for real estate.

PRICES RECEIVED AND PAID BY N.Y. DAIRY FARMERS, 1970-1978

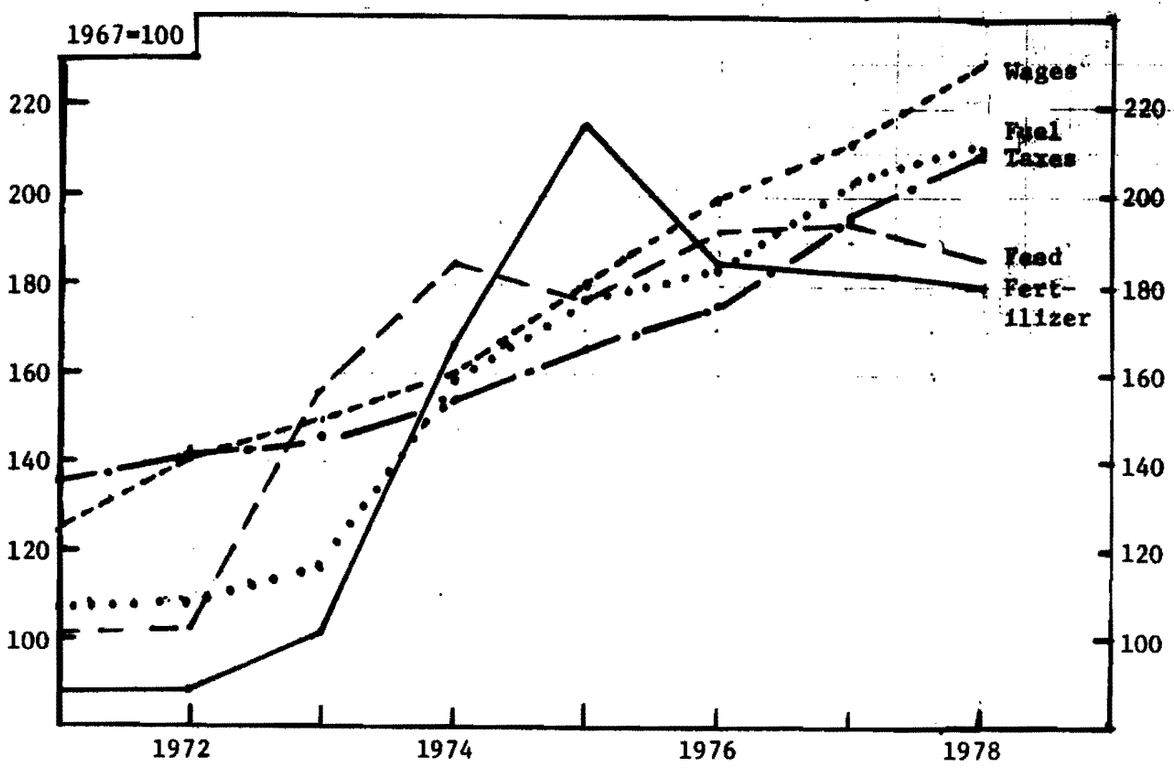


The relationship of prices received to prices paid determines the general level of farm incomes. The graph above shows the trend in prices since 1970 for milk, cull cows, and the index of prices paid by New York dairy farmers. Since 1971, milk prices have lagged behind all prices paid. Milk and slaughter cow prices dropped slightly in 1977 then rose sharply in 1978. In 1978, prices paid rose 5 percent, milk 8 percent, and slaughter cows 42 percent. The price situation for dairy farmers was more favorable in 1978 than in 1977.

Table 2. PRICES RECEIVED AND PAID BY NEW YORK DAIRY FARMERS, 1967-1978

Year	Milk 3.5% B.F.	Slaughter Cows	Prices Paid by N.Y. Dairy Farmers	Monthly Farm Price Per 100 Lbs. of Milk, 1978	
	(cwt.)	(cwt.)	(1967=100)		
1967	$5.07	$17.10	100	January	$ 9.82
1970	5.89	20.70	112	February	9.87
1971	6.02	21.20	120	March	9.65
1972	6.25	24.48	126	April	9.60
1973	7.30	32.80	146	May	9.55
1974	8.24	27.40	172	June	9.60
1975	8.64	20.60	186	July	10.16
1976	9.71	25.57	200	August	10.84
1977	9.61	25.09	210	September	11.12
1978	10.38	35.58	221	October	11.45
				November	11.54
				December	11.42

PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1971-1978



Since 1972, all prices paid by New York dairy farmers have risen but some more than others. Fertilizer and motor fuel prices jumped sharply in 1974 and 1975, then fertilizer dropped in 1976. Feed and fertilizer have held relatively steady since 1976, while wages, fuel, and taxes have continued to rise. Fuel, wages and taxes have more than doubled since 1967 (table 3).

Table 3. PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1972-1978

Year	Index 1967=100				
	Feed	Fertilizer	Fuel	Wages	Taxes
1972	112	94	108	140	142
1973	157	102	116	150	146
1974	185	167	159	160	154
1975	177	217	177	180	166
1976	192	185	187	199	176
1977	194	182	203	212	195
1978	186	180	211	229	210
Percent increase:					
1972 to 1978 (av.)	11%	15%	16%	11%	8%
1976 to 1977	1%	-2%	9%	7%	11%
1977 to 1978	-4%	-1%	4%	8%	8%

SOURCE: U.S.D.A. - Agricultural Prices.

SUMMARY OF FARM BUSINESS

Business Characteristics and Resources Used

A knowledge of the farm resources used and the business characteristics helps in evaluating management performance. The combining of resources and management practices is known as farm organization. The table below shows important farm business characteristics, the number of farms reporting these characteristics, and the average use of labor and land resources.

Table 4. BUSINESS CHARACTERISTICS AND RESOURCES USED
527 New York Dairy Farms, 1978

Type of Business	Number	Percent
Individual	429	81
Partnership	89	17
Corporation	8	2
Barn Type		
Stanchion	330	63
Free Stall	182	35
Other	15	2
Milking System		
Bucket & Carry	11	2
Dumping Station	145	28
Pipeline	203	38
Herringbone	133	25
Other Parlor	35	7

Business Records	Number	Percent
Account Book	228	43
Agrifax	117	20
CAMIS	104	22
Agway	20	4
Farm Bureau	12	2
Other	46	9
Dairy Records		
D.H.I.C.	357	68
Owner Sampler	65	12
Other	25	5
None	80	15

Labor Force	My Farm	Average
Operator	_____	14 mo.
Family paid	_____	3 mo.
Family unpaid	_____	3 mo.
Hired	_____	9 mo.
Total months	_____	29
Operators (638)	_____	1.21
Age	_____	41 yrs.
Education	_____	13 yrs.
Est. value labor and management	$_____	$12,600

Land Used	My Farm	Average
Total acres:		
Owned	_____	308
Rented (409)	_____	100
Crop acres:		
Rented (402)	_____	76
Total	_____	217
Number of Cows		
Beg. of year	_____	71
End of year	_____	72
Av. for year	_____	71

Eighty-nine of the 527 farms were partnerships and eight were corporations. There was an average of 1.21 operators per farm. The years of formal education of the operators was obtained and the average was 13 years, or the equivalent of one year of college. The operators estimated the value of their labor and management at $12,600. This is up $900 from the average reported in the 1977 summary.

Of the 527 farms, 76 percent rented some cropland. The 402 farms rented an average of 76 acres each, which is an average of 58 acres for all farms. The 527 farms averaged 217 total crop acres of which 58 acres, or 27 percent, were rented.

Farm Inventory Values

Table 5. CAPITAL INVESTMENT - FARM INVENTORY VALUES
527 New York Dairy Farms, 1978

Item	My Farm 1/1/78	My Farm 1/1/79	Average 527 Farms 1/1/78	Average 527 Farms 1/1/79
Livestock	$_____	$_____	$ 56,895	$ 75,409
Feed and supplies	_____	_____	19,047	22,949
Machinery & equipment	_____	_____	53,521	59,993
Land and buildings	_____	_____	153,032	164,011
TOTAL	$_____	$_____	$282,455	$322,362

The total farm inventory on these 527 farms increased an average of $40,000, or 14 percent during 1978. All items increased as shown in table 5. Livestock accounted for $18,500, and land and buildings $11,000 of the increase.

Cattle prices rose sharply during 1978. Slaughter cow prices for 1978 averaged $35 compared with $25 for 1977. This is a 40 percent increase. Dairy cow prices tend to follow beef prices. The average price of dairy cow replacements as reported by the Crop Reporting Service was $495 for December 1977 and $690 for December 1978. Since it is suggested that the inventories reflect market values, the large increase in livestock inventories is to be expected.

Information from the individual farm "check-in sheets" was tabulated and analyzed to determine the amount of increase in dairy cattle inventory values from 1/1/78 to 1/1/79 for all farms summarized. Useable information was available for 549 farms (included dairy, dairy-cash crop, dairy renters, etc.).

The average inventory value per dairy cow increased from $589 in the beginning inventory to $759 in the end, or an increase of $170 per cow which is less than the Crop Reporting Service increase of $195 (table 1). Heifers of all ages increased an average of $106 per head as shown below. The herds also averaged two more cows and three more heifers at the end of the year.

Table 6. CHANGES IN LIVESTOCK INVENTORY VALUES
549* New York Dairy Farms, 1978

Item	Dairy Cows Number	Dairy Cows Av. Value	Heifers Number	Heifers Av. Value
Inventory 1/1/78	71	$589	49	$298
Inventory 1/1/79	73	$759	52	$404
Change	+2	+$170	+3	+$106
Increase in inventory due to change in values	(71 x $170 = $12,070)		(49 x $106 = $5,194)	
	$12,070 + $5,194 = $17,264			

* Includes dairy only plus dairy cash crops and dairy renters.

The variation by regions in the average increase per cow was from $99 to $233 and for heifers from $73 per head to $151. The variation of individual farms ranged from 0 to $500 per cow. The calculated increase in inventory per farm due to higher cattle prices was $17,264. This increase is reflected in the labor and management income per operator.

Machinery and Real Estate Calculations

Capital expenditures for machinery and buildings usually occur in large amounts but then are used over a number of years. Calculation of the machinery depreciation to be charged to the 1978 business is shown below. The building depreciation used here is the amount reported for tax purposes. Both are included as farm expenses on page 10.

Table 7. MACHINERY DEPRECIATION
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms
Beginning Inventory	$_____	$53,521
Purchases	_____	13,012
Total (1)	$_____	$66,533
End Inventory	$_____	$59,993
Sales	_____	239
Total (2)	_____	60,232
DEPRECIATION (1 minus 2)	$_____	$6,301
Percent Depreciation	_____%	9%

Lost capital represents the difference between the cost of real estate purchased during the year and the amount these improvements added to the sale value of the real estate. It is not included in farm expenses since building depreciation is based on the full cost of new buildings and will account for the lost capital over the life of the building.

Real estate appreciation was estimated by each farm operator. This appreciation includes the increase in market value and the building depreciation for the beginning package of real estate. Appreciation averaged about 5 percent of the beginning real estate inventory for the year 1978.

Table 8. REAL ESTATE CALCULATIONS
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms
Beginning Inventory	$_____	$153,032
Plus cost of purchases	$_____	$ 8,688
Less lost capital	_____	-1,288
Value added	_____	+7,400
Less bldg. depreciation	$_____	$-2,906
Less items sold	_____	-644
Value deducted	_____	-3,550
Plus appreciation	_____	7,129
End of Year Inventory	$_____	$164,011

Receipts

Total farm receipts indicate the value of the farm's production for the year. This includes the cash received for products sold plus the increase in value of livestock and feed and supplies inventories. The receipts on these 527 farms averaged about $380 per day or $5 per cow per day.

Table 9. FARM RECEIPTS
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms Per Farm	Per Cow	Percent
Milk sales	$_____	$102,934	$1,450	88
Crop sales	_____	832	12	1
Dairy cattle sold	_____	8,830	124	7
Other livestock sales	_____	2,133	30	2
Gas tax refunds	_____	131	2	--
Government payments	_____	996	14	1
Work off farm	_____	61	1	--
Custom machine work	_____	197	3	--
Miscellaneous	_____	1,130	15	1
Total Cash Receipts	$_____	$117,244	$1,651	100
Increase in livestock inventory	_____	18,514	261	
Increase in feed & supply inventory	_____	3,942	55	
TOTAL FARM RECEIPTS	$_____	$139,700	$1,967	

Cow prices rose sharply during the year and cattle numbers increased, so the 527 farms had a net increase in livestock inventories of $18,514. The estimated increase in inventory values due to the higher cow and heifer prices was $17,264 (table 6) which would leave $1,250 of the inventory increase due to more animals.

The average price received for milk in 1978 by the 527 farms was $10.51. Milk sales per cow averaged $1,450 for the 527 farms, while the top 10 percent of the farms based on labor income averaged $1,540 (table 10). Total cash receipts per man averaged $48,850 for all farms and $56,500 or 16 percent more for the top 10 percent of the farms.

Table 10. INCOME ANALYSIS

Item	My Farm	Average 527 Farms	Top 10%
Average price per cwt. milk sold	$_____	$10.51	$10.58
Milk sales per cow	$_____	$1,450	$1,540
Total cash receipts per man	$_____	$48,848	$56,485

The average price per hundredweight of milk sold is calculated by dividing the gross milk receipts for the year by the total pounds of milk sold. The average price for the 527 farms was $10.51 but there was considerable variation among the individual farms. The variation in average price received for different farms is shown below.

Variation in Average Milk Price Received

Average Price/Cwt. Received for Milk	Farms	
	Number	Percent
Below $10.00	67	13
$10.00 to $10.24	143	27
10.25 to 10.49	163	31
10.50 to 10.74	51	10
10.75 to 10.99	27	5
11.00 to 11.24	32	6
11.25 to 11.49	23	4
11.50 or more	21	4
Total	527	100

Dairymen often say there is nothing they can do about the price received for milk. This may be true as it pertains to the price at a particular time, but the variation shown above indicates that the average annual price received for milk by farmers does vary. Management practices account for some of the differences. Seasonality of production and butterfat test are two management items that affect the average price for the year.

Total farm receipts are sometimes used as a measure of size of business. The Census of Agriculture uses this measure in classifying farms. The distribution of total farm receipts of the 527 farms in 1978 is shown below.

Distribution of Farms by Total Farm Receipts

Total Farm Receipts	Farms	
	Number	Percent
Under $ 50,000	24	5
$ 50,000 to $ 74,999	72	14
75,000 to 99,999	95	18
100,000 to 124,999	108	20
125,000 to 149,999	67	13
150,000 to 174,999	41	8
175,000 to 199,999	26	5
200,000 to 224,999	24	5
225,000 to 249,999	17	3
250,000 to 274,999	14	2
275,000 or over	39	7
Total	527	100

Only 5 percent of the 527 farms had total farm receipts under $50,000, while 7 percent had receipts of $275,000 or more.

Expenses

The total cash farm expenses for the 527 farms averaged about $250 per day or $3.50 per cow per day. Total expenses averaged $316 per day. The average expenses per farm and per cow for each item are shown below.

Table 11. FARM EXPENSES
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms Per Farm	Per Cow	Percent
Labor				
Hired labor	$_____	$ 8,724	$ 123	10
Feed				
Dairy concentrate	_____	28,994	408	32
Other feed	_____	1,501	21	2
Machinery				
Machine hire	_____	867	12	1
Machinery repairs	_____	5,522	78	6
Auto expense (farm share)	_____	359	5	--
Gas and oil	_____	3,293	46	4
Livestock				
Purchased animals	_____	3,493	49	4
Breeding fees	_____	1,290	18	1
Veterinary and medicine	_____	1,855	26	2
Milk marketing	_____	2,893	41	3
Other livestock expense	_____	3,630	51	4
Crops				
Lime and fertilizer	_____	5,232	74	6
Seeds and plants	_____	1,772	25	2
Spray & other crop expense	_____	1,282	18	1
Real Estate				
Land, building, fence repair	_____	1,856	26	2
Taxes	_____	2,610	37	3
Insurance	_____	1,808	25	2
Rent	_____	1,408	20	2
Other				
Telephone (farm share)	_____	421	6	--
Electricity (farm share)	_____	1,877	26	2
Interest paid	_____	8,132	115	9
Miscellaneous	_____	1,324	19	2
TOTAL CASH EXPENSES	$_____	$ 90,143	$1,269	100
Machinery depreciation	_____	6,301	89	
Building depreciation	_____	2,906	41	
Unpaid labor	_____	1,275	18	
Interest on equity capital @ 7%	_____	14,818	209	
Decrease in livestock inventory	_____	--		
Decrease in feed & supply inventory	_____	--		
TOTAL FARM EXPENSES	$_____	$115,443	$1,626	

The cash expense classifications used on page 10 are taken from the "Cornell Farm Account Book". Lists of the items included in each category are presented on the inside back cover of that account book.

Interest paid on farm indebtedness is included as a cash expense in these summaries. Debt payments usually include both interest and principal but only the interest portion is included in the expenses. Principal payments are a "savings" not an operating expense of the business.

Machinery and real estate depreciation - expenditures for machinery and buildings are usually made in large amounts. To include all the expenses in the year of purchase would inflate the farm expenses for that year. Machinery depreciation was calculated on page 7, and for building depreciation, the farmers reported the amount used on income tax returns.

Unpaid family labor refers to work done by members of the family who are not paid cash wages. The operator estimates the number of months of unpaid labor. This is charged to the business at $425 per month.

Interest on equity capital at 7 percent has been included as a noncash expense item. This represents what the operator might have earned on his equity capital had he not had it invested in the farm business. This is often called an "opportunity cost". The end-of-year farm net worth (see page 15) is used as the equity capital for computing this interest charge.

Decrease in livestock and feed inventories is the amount that the beginning inventory for each of these two items exceeds the end inventory. Since this indicates a "using up" of inventory items, it is considered as a farm expense for the year. For the 527 farms, the net inventory change was an increase for feed and supplies and livestock. Space is provided for individual farms that might have a decrease.

Farm expenses can be classified on the basis of fixed, variable, and capital items as shown below:

Overhead Expenses (Fixed)	
Land & building repairs	$ 1,856
Property taxes	2,610
Insurance	1,808
Rent	1,408
Electricity	1,877
Telephone	421
Total Fixed Overhead	$ 9,980
Capital Expenses	
Interest on equity capital	$14,818
Interest paid	8,132
Machinery depreciation	6,301
Real estate depreciation	2,906
Total Capital Expenses	$32,157

Operating Expenses (Variable)	
Labor	$ 8,724
Feed	30,495
Machinery repairs	5,522
Gas and oil	3,293
Machine hire	867
Auto	359
Livestock purchased	3,493
Livestock expenses	9,668
Fertilizer and lime	5,232
Other crop expenses	3,054
Unpaid labor	1,275
Miscellaneous	1,324
Total Variable	$73,306

On these farms, the variable expenses accounted for 63 percent, the fixed 9 percent, and the capital expenses 28 percent of the total farm expenses.

Financial Summary of Year's Business

The financial summary of the year's business reflects the results of the management. Researchers have developed a number of ways to measure the returns from a farm business. Four common measures are reported here. The measure selected at any one time will depend on the purpose for which it is used.

Table 12. NET CASH FARM INCOME
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms Per Farm	Average 527 Farms Per Cow
Cash Farm Receipts	$_____	$117,244	$1,651
Cash Farm Expenses	_____	90,143	1,269
NET CASH FARM INCOME	$_____	$ 27,101	$ 382

Net cash farm income is a measure of the cash available from the year's farm operations for family living, debt payments and other uses. A family may have additional cash available if they have nonfarm income. Net cash flow is not a good measure of farm business profits but it does show the cash situation, and is useful in planning debt repayment programs or family budgets.

Table 13. LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms, 1978 Increase in Cattle Prices Included	Average 527 Farms, 1978 Increase in Cattle Prices Excluded	Average 570 Farms 1977
Total Farm Receipts	$_____	$139,700	$122,436	$107,395
Total Farm Expenses	_____	115,443	114,235	103,657
LABOR & MANAGEMENT INCOME	$_____	$ 24,257	$ 8,201	$ 3,738
Number of Operators (638)	_____	1.21	1.21	1.23
LABOR & MGT. INCOME/OPERATOR	$_____	$ 20,047	$ 6,778	$ 3,049

Labor and management income measures the return to the operator for his efforts in operating the business. A 7 percent charge for the use of equity capital is included as a farm expense. This interest charge reflects what could have been earned if this capital had been invested elsewhere, such as in bank certificates. Labor and management income per operator is the measure generally used for comparing farm businesses.

For 1978, the average labor and management income per operator is reported with the "increase in cattle prices" included and excluded. Cattle prices have risen so it is logical to include the higher values in the calculations. For comparison purposes, calculations have been made with effects of the cattle price increases excluded. The $17,264 increase due to higher cattle prices (table 6) has been subtracted from the receipts and 7 percent interest on the increased equity capital due to the higher value ($1,208) has been subtracted from the expenses to get the "excluded" income per operator of $6,778.

The average labor and management income per operator for these 527 dairy farms with the higher cattle values included was $20,047 and when excluded $6,778. For the general summary and analysis purposes, the "included" income figures have been used. Operators, in addition, have the use of a house and perquisites, such as milk and meat which should be included when considering the operator's net earnings. There was a wide range in the labor and management incomes as shown below. Nine percent of the farms had minus labor incomes for 1978, while 16 percent had labor incomes of $35,000 or more.

Distribution of Labor and Management Incomes Per Operator

Labor and Management Income Per Operator	Farms	
	Number	Percent
Minus	48	9
$ 0 to $ 4,999	31	6
5,000 to 9,999	63	12
10,000 to 14,999	87	16
15,000 to 19,999	75	14
20,000 to 24,999	61	12
25,000 to 29,999	51	10
30,000 to 34,999	27	5
35,000 or over	84	16
Total	527	100

Labor, management, and ownership income per operator reflects the combined return to the farmer for his triple role of worker-manager, financier, and owner. This measure includes appreciation on real estate, and return on equity capital, and is the amount available for the operator's living and his gain in business net worth. The average labor, management, and ownership income per operator was $38,185, or nearly double the labor and management income.

Table 14. LABOR, MANAGEMENT, AND OWNERSHIP INCOME
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms	Percent
Labor and management income/farm (p. 12)	$_____	$24,257	53
Real estate appreciation (p. 7)	_____	7,129	15
Interest on equity capital @ 7% (p. 10)	_____	14,818	32
Total Per Farm	$_____	$46,204	100
Number of operators	_____	(638) 1.21	
LABOR, MANAGEMENT & OWNERSHIP INCOME/OPR.	$_____	$38,185	

Management income is another measure used in studying farm businesses. To get management income, the value of the operator's labor is subtracted from labor and management income. In this study, an operator's labor was valued at $7,800. This gives a management income per operator of $12,247 ($20,047 minus $7,800). If the increase in cattle prices were included, the management income would be -$1,022 per operator.

Return on Equity Capital can be computed with or without real estate appreciation. To calculate return on equity capital (including real estate appreciation), the estimated value of operator's labor and management is deducted from labor, management and ownership income. This return to equity capital is divided by the farm net worth to get the rate of return on equity capital. To compute return on equity capital, excluding real estate appreciation, real estate appreciation must be deducted from ownership income.

Table 15. RETURN ON EQUITY CAPITAL
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms
	Including Real Estate Appreciation	
Labor, Management & Ownership Income (p. 13)	$_____	$ 46,204
Value of Operator's Labor & Management (p. 5)	_____	(1.21) 15,200
RETURN ON EQUITY CAPITAL	$_____	$ 31,004
Amount of Equity Capital	_____	$211,680
RATE OF RETURN ON EQUITY CAPITAL	_____%	14.6%
	Excluding Real Estate Appreciation	
Return on Equity Capital (from above)	$_____	$ 31,004
Real Estate Appreciation	_____	7,129
RETURN ON EQUITY CAPITAL	$_____	$ 23,875
Amount of Equity Capital	_____	$211,680
RATE OF RETURN ON EQUITY CAPITAL*	$_____	11.3%

* The rate of return on the end-of-year capital was 7.4%.

The operators were asked to estimate the value of their labor and management on the basis of what they might be able to earn if they were to work in a similar position. The average estimate for the 638 operators was $12,562. This is in line with the value if determined by the value of the labor plus a management charge based on 5 percent of the cash receipts ($7,800 + $4,845 = $12,645).

Returns Per Unit of Input

Income from a business can also be calculated in relation to various input units. For example, since these are family-type farms, the labor and management return can be figured on a per man basis. Returns can also be figured on a per cow basis. These are shown below.

Returns to All Labor	
Labor & mgt. income per farm	$24,257
Value hired labor	8,724
Value unpaid labor	1,275
Total Returns to Labor	$34,256
Average man equivalent	2.4
Returns per man equivalent	$14,273
Returns per hour (3,000 hrs./yr.)	$4.76

Returns Per Cow	
Net cash farm income/cow	$382
Labor & mgt. income/cow	$342
Labor, management & ownership income/cow	$651
Increase in Cattle Values Excluded	
Labor & mgt. income/cow	$116
Returns per hour labor	$2.53

Farm Family Financial Situation

Table 16. FARM FAMILY FINANCIAL SITUATION
527 New York Dairy Farms, January 1, 1979

Item	My Farm	Average 527 Farms Amount	Percent
Assets			
Livestock	$_____	$ 75,410	22
Feed and supplies	_____	22,950	6
Machinery and equipment	_____	59,994	17
Land and buildings	_____	164,011	46
Co-op investment	_____	3,746	1
Accounts receivable	_____	8,165	2
Cash and checking accounts	_____	2,112	1
Total Farm Assets	$_____	$336,388	95
Savings accounts	$_____	$ 3,433	1
Cash value life insurance	_____	2,835	1
Stocks and bonds	_____	2,069	1
Nonfarm real estate	_____	4,097	1
Auto (personal share)	_____	1,046	--
All other	_____	4,268	1
Total Nonfarm Assets	_____	17,748	100
TOTAL ASSETS	$_____	$354,136	
Liabilities			
Real estate mortgage	$_____	$ 70,303	56
Liens on cattle & equipment	_____	42,856	34
Installment contracts	_____	2,283	2
Loans: More than 7 years	_____	2,218	2
1 to 7 years	_____	3,890	3
Less than 1 year	_____	1,049	1
Other	_____	2,109	2
Total Farm Liabilities	_____	124,708	
Nonfarm Liabilities	_____	741	
TOTAL LIABILITIES	$_____	$125,449	
Farm Net Worth (equity capital)	$_____	$211,680	
Family Net Worth	$_____	$228,687	

The financial situation is an important part of the farm business summary. It has a direct effect on current cash outflow and future capital investment decisions. A farmer may have a good labor income but a high debt payment schedule may seriously restrict his management flexibility.

Total farm assets accounted for 95 percent of the total assets. Real estate mortgages were the largest liability and accounted for 56 percent of all debts. Installment contracts, notes and other debt accounted for 10 percent of all liabilities. These are often problem debt areas. Equity capital for the 527 farms averaged $211,700, and the total family net worth exceeded $225,000.

Table 17. FINANCIAL MEASURES AND DEBT COMMITMENTS
527 New York Dairy Farms, January 1, 1979

Measure	My Farm	Average 527 Farms	Average Top 10% Farms
Percent equity	_____%	65%	69%
Farm debt per cow	$_____	$1,708	$1,501
Available for debt service & living	$_____	$35,229	$55,326
Scheduled annual debt payments	$_____	$21,280	$32,160
Scheduled debt payment per cow	$_____	$292	$298
Scheduled debt payment as % milk check	_____%	21%	20%

Equity capital, or farm net worth, is the difference between the total farm assets and the total farm liabilities. It represents the amount of farm capital provided by the operator.

Percent equity is the family net worth divided by the total assets. This indicates the general equity position of the family for credit purposes.

Farm debt per cow is total farm liabilities divided by number of cows at end of the year. It indicates the relative debt load per production unit.

Available for debt service and living is the net cash farm income plus the interest paid. In planning debt repayments, subtract the expected family living expenses to determine the amount available for debts.

Scheduled annual debt payments represent the commitments outstanding as of January 1, 1979. When figured on a per cow or percent of milk check basis, the reasonableness of the debt commitment can be appraised.

As shown in table 18, there did not appear to be any definite relationship between herd size and percent equity or debt per cow.

Table 18. FINANCIAL SITUATION BY SIZE OF HERD
527 New York Dairy Farms, 1978

Herd Size (Cows)	Number of Farms	Number of Cows	Total Farm Assets	Farm Liabilities	Farm Equity Capital	Percent Equity	Debt Per Cow
Under 40	73	33	$163,600	$ 53,620	$110,000	67%	$1,620
40 to 54	156	47	227,800	91,100	136,700	60	1,940
55 to 69	104	61	285,800	114,000	171,800	60	1,870
70 to 84	68	75	364,200	131,700	232,500	64	1,760
85 to 99	34	91	410,100	147,800	262,300	64	1,620
100 to 114	28	106	478,700	194,300	284,400	59	1,830
115 to 129	19	121	507,600	194,900	312,600	62	1,600
130 to 149	16	139	566,300	197,200	369,000	65	1,420
150 & over	29	195	754,100	326,300	427,900	57	1,670

An analysis of the farm business financial situation can point up many things about the operator's management of finances. The checklist below is designed to help focus on financial management practices in use by New York dairymen.

Table 19. A FARM FINANCE CHECKLIST
527 New York Dairy Farms, 1978

	My Farm	1978 Av. 527 N.Y. Farms	1978 Av. Top 10% Farms
A. How assets are being used:			
1. Total inventory (capital)/cow	$_____	$4,500	$4,400
2. % assets in productive units	_____%	22%	25%
3. % assets in farm real estate	_____%	49%	44%
4. % assets in machinery	_____%	18%	19%
5. % assets in cash and checking accounts	_____%	1%	1%
B. Characteristics of the debt structure:			
1. % debt long-term	_____%	56%	50%
2. % debt in chattel liens	_____%	34%	40%
3. % debt installment contracts	_____%	2%	2%
4. % debt in notes & open accounts	_____%	8%	8%
C. Have you borrowed to the limit?			
1. % equity in business	_____%	65%	69%
2. Real estate debt as % of inventory value	_____%	43%	37%
3. Liens as % of livestock and machinery inventory	_____%	32%	31%
D. How is your debt repayment schedule?			
1. Farm debt per cow	$_____	$1,700	$1,500
2. Scheduled debt payments/cow	$_____	$292	$298
3. Scheduled debt payments as % of milk check	_____%	21%	20%
E. What financial progress did you make last year?			
1. Change in farm assets	$_____	+$48,700*	
2. Change in farm debts	$_____	+$8,900	
3. Change in net worth	$_____	+$39,800	

* Progress of 365 same farms for 1977 and 1978.

The average of the 527 farms provides a general basis for comparison or a benchmark. Averages for the top 10 percent of the farms on the basis of labor and management income per operator indicates the practices used by the better operators.

ANALYSIS OF THE FARM BUSINESS

A systematic analysis of the operation helps to determine strengths and weaknesses in the business. In this part, five business factors are examined: size of business, rates of production, labor efficiency, capital efficiency, and cost control. The 1978 averages of selected measures for these factors for the 527 farms, and the average for the 10 percent with the highest labor and management incomes per operator are reported along with general relationships of factors to labor income. Since the measures examined are interrelated, all factors should be studied before arriving at major conclusions.

Size of Business

Size has an effect on other factors such as labor efficiency, cost control, and capital efficiency. The prices received and paid are often affected by volume which is a function of size. Farm management studies show that in general, larger farm businesses (when well managed) make larger labor incomes. Two basic reasons for this are that larger businesses make possible more efficient use of overhead inputs such as labor and machinery, and there are more units on which to make a profit.

Table 20. MEASURES OF SIZE OF BUSINESS
527 New York Dairy Farms, 1978

Measure	My Farm	Average 527 Farms	Average Top 10% Farms
Number of cows	_____	71	103
Number of heifers	_____	49	77
Man equivalent	_____	2.4	3.2
Total acres in crops	_____	217	302
Pounds of milk sold	_____	979,500	1,499,200
Total work units	_____	780	1,143
Total cash receipts	$_____	$117,244	$180,752
Total investment (end inventory)	$_____	$322,360	$474,583

Number of cows is the average number in the herd for the year. Where available, the DHI annual average is used.

Total acres in crops includes all acres on which crops were harvested during the 1978 year. It does not include cropland pasture or uncropped land.

Man equivalent is the amount of labor available on the farm during the year in terms of full-time man years. Work of part-time employees and family members is converted to full-time man equivalent.

Total work units represents the number of productive man days that would be required under average conditions to care for the acreage of crops grown and the number of livestock handled. A man work unit is the average amount of productive work accomplished in ten hours.

Table 21. COWS PER FARM AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Number of Cows	Number of Farms	Percent of Farms	Labor & Management Income Per Operator	Labor & Management Income Per Cow
Under 40	73	13%	$ 9,865	$307
40 to 54	156	30	14,480	345
55 to 69	104	20	18,505	376
70 to 84	68	13	20,246	345
85 to 99	34	6	18,818	286
100 to 114	28	5	32,417	382
115 to 129	19	4	27,440	358
130 to 149	16	3	32,752	341
150 to 179	19	4	38,705	304
180 to 199	1	--	--	--
200 & over	9	2	60,773	379

The relation of size of business to labor and management income was observed for size as measured by number of cows and by man equivalent. In general, the larger the businesses, the higher the labor incomes per operator. This relationship is consistent with that of earlier studies. A well-managed large farm will provide the operator a higher income than a well-managed small one, but a large farm poorly managed also can lose more.

Man equivalent is often used as a measure of size. It is of interest that 74 percent of the farms had man equivalents of less than 3.0 (table 22). Thirty-three percent of the farms had less than 2.0 men and only 9 percent had 4.0 or more.

In general, the number of cows increased with the man equivalent, and the larger the farm as measured by man equivalent, the larger the labor and management income per operator. There is an indication that the farms with 4.0 or more man equivalent may be past the optimum size for greatest profit.

Table 22. MAN EQUIVALENT PER FARM AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Man Equivalent	Number of Farms	Percent of Farms	Number of Cows	Labor & Management Income Per Operator
1.0 to 1.4	58	11%	40	$15,320
1.5 to 1.9	115	22	47	15,790
2.0 to 2.4	147	28	59	16,390
2.5 to 2.9	68	13	69	21,860
3.0 to 3.4	65	12	91	25,570
3.5 to 3.9	29	5	105	30,180
4.0 to 4.4	20	4	128	20,640
4.5 & over	25	5	189	28,520

Rates of Production

Production per animal and per acre are factors that affect farm incomes. In correlation analysis of the 1976 data, milk sold per cow was second to size in importance with the r values being .26 and .34 respectively.

Table 23. MEASURES OF RATES OF PRODUCTION
527 New York Dairy Farms, 1978

Item	My Farm		527 Farms			Av. Yield Top 10% Farms
	Acres	Yield	Farms Reporting	Average* Acres	Yield	
Milk sold per cow (lbs.)	_____	_____			13,800	14,600
All hay crops (tons H.E./acre)	_____	_____	526	128	2.4	2.7
Corn silage (tons/acre)	_____	_____	503	63	13.9	14.7
All forage crops (tons H.E./acre)	_____	_____	527	189	3.1	3.6
Grain corn (bu/acre)	_____	_____	205	50	93	95
Oats (bu/acre)	_____	_____	123	25	63	71

* Average for farms reporting the crop.

Pounds of milk sold per cow is calculated by dividing the total pounds of milk sold for the year by the average number of cows. No adjustment is made for differences in test of the milk.

Tons of hay crops per acre is calculated by adding the hay equivalent of hay crop silage and green chop to the dry hay and dividing by the total acres of cropland used for hay crops.

Tons of hay equivalent per acre of all forages is determined by adding tons of hay equivalent of corn silage to the tons of hay crops and dividing by total acres used for growing forages. This measures the intensity of use of "forage" land.

Studies have shown repeatedly that farms with higher rates of production tend to have higher labor incomes. In 1978, the farms that sold more milk per cow tended to be larger, bought more feed per cow, and had higher incomes. The farms with over 16,000 pounds per cow showed some drop in income.

Table 24. MILK SOLD PER COW AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Pounds of Milk Sold Per Cow	Number of Farms	Number of Cows	Feed Bought Per Cow	Labor & Management Income Per Operator	Per Cow
Under 10,000	28	60	$294	$ 3,400	$ 64
10,000 to 10,999	37	52	339	10,170	227
11,000 to 11,999	37	67	334	19,230	349
12,000 to 12,999	76	69	370	18,680	296
13,000 to 13,999	99	75	378	18,680	294
14,000 to 14,999	99	79	442	23,650	369
15,000 to 15,999	85	75	465	26,690	456
16,000 and over	66	65	499	21,590	438

Labor Efficiency

Labor inputs account for about one-sixth of the costs in producing milk. Therefore, it is important that labor be used efficiently. Accomplishments per worker are used to measure labor efficiency. This is an important factor affecting labor and management incomes.

Table 25. MEASURES OF LABOR EFFICIENCY
527 New York Dairy Farms, 1978

Measure	My Farm	Average 527 Farms	Average Top 10% Farms
Number of cows per man	_____	29	32
Pounds of milk sold per man	_____	404,800	472,900
Work units per man	_____	322	361
Crop acres per man	_____	90	94

Pounds of milk sold per man is determined by dividing the total pounds of milk sold by the man equivalent. This is probably the best measure of labor efficiency for dairy farms.

Labor accomplishments (efficiency) depends on a number of things. Among these are the amount of mechanization, the field and building layout, the work methods used, and the abilities of the workers. All of these are management items under the control of the operator.

The 10 percent of the farms with the highest labor and management incomes per operator were considerably above the average of all 527 farms in the four measures of labor efficiency. The top 10 percent sold 17 percent more milk per man than the average of all farms.

The relationship of labor efficiency to labor income was generally positive on the 527 farms. The higher output per man was achieved by more and better cows.

Table 26. MILK SOLD PER MAN AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Pounds of Milk Sold Per Man	Number of Farms	Number of Cows	Lbs. Milk Per Cow	Labor & Management Income Per Operator	Per Cow
Under 250,000	62	41	11,200	$ 6,760	$191
250,000 to 299,999	60	49	12,900	12,830	309
300,000 to 349,999	71	68	13,100	14,170	279
350,000 to 399,999	91	66	13,800	21,000	376
400,000 to 449,999	82	73	14,400	23,090	392
450,000 to 499,999	64	79	14,500	23,500	337
500,000 to 599,999	67	97	15,200	25,570	366
600,000 and over	30	120	14,500	34,840	413

Capital Efficiency

The average end-of-year inventory on the 527 farms was $322,400. This includes both owned and borrowed capital for all farms. More than one-third was borrowed. The use of credit is part of capital management. Since capital is a key input item, it is important to analyze the use of capital in the business. The analysis in this section is designed to examine how efficiently the capital was used.

Table 27. MEASURES OF CAPITAL EFFICIENCY
527 New York Dairy Farms, 1978

Measure	My Farm	Average 527 Farms	Average Top 10% Farms
Total capital per man	$_____	$133,200	$149,700
Total capital per cow	$_____	$4,500	$4,390
Total capital per cwt. milk sold	$_____	$33	$32
Machinery & equipment per cow	$_____	$830	$790
Land & building inventory per cow	$_____	$2,280	$2,030
Land & building inventory per crop acre owned	$_____	$1,160	$1,200
Capital turnover (capital ÷ receipts)	_____	2.3	2.0

Total capital for the 527 farms averaged $133,000 per man and $4,500 per cow (table 27). The top 10 percent of the farms had $150,000 per man and $4,400 per cow. This suggests that efficiency in use of capital means more capital per worker but less capital per cow. This might be achieved by more equipment per worker, making it possible to handle more cows but with less capital per cow.

Capital efficiency is often associated with size of herd, so the 527 farms were sorted on number of cows and the capital efficiency measures were calculated (table 28). There appears to be a relationship between size and capital efficiency for machinery, real estate, and total capital per cow, and per cwt. of milk. The larger herds used capital more efficiently.

Table 28. SIZE OF HERD AND CAPITAL EFFICIENCY
527 New York Dairy Farms, 1978

Number of Cows	Number of Farms	Capital Investment Per Cow			Total Capital Per Cwt. Milk
		Total	Real Estate	Machinery	
Under 40	73	$4,860	$2,660	$900	$38
40 to 54	156	4,780	2,500	890	36
55 to 69	104	4,570	2,300	890	33
70 to 84	68	4,880	2,500	940	34
85 to 99	34	4,390	2,200	800	33
100 to 114	28	4,480	2,200	800	32
115 to 129	19	4,100	2,000	750	30
130 to 149	16	4,000	2,000	700	28
150 & over	29	3,800	1,800	680	28

Cost Control

Cost control is a factor in the successful operation of a dairy farm. Feed, machinery, labor, and capital are major cost items and are examined in detail. In the manager's efforts to control costs, it is important to check all items both large and small. Profitable businesses usually maintain a "tight" control on all costs. Some miscellaneous cost items are examined on page 27.

Feed Costs

Feed is the largest single expense item on New York dairy farms. For the 527 farms in 1978, dairy concentrate accounted for 32 percent of the cash operating expenses so feed is the first item examined.

Dairy feed costs are affected by many things. There is no satisfactory single feed cost control measure so the feed situation is examined in the analysis of feed costs. Below are selected measures related to feed costs.

Table 29. ITEMS RELATED TO FEED COSTS
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms	Average Top 10% Farms
Feed bought per cow	$_____	$408	$409
Crop expense per cow	$_____	$117	$129
Feed bought per cwt. milk	$_____	$2.96	$2.81
Feed & crop expense per cwt. milk	$_____	$3.81	$3.70
% feed is of milk sales	_____%	28%	27%
Hay equivalent per cow	_____T.	8.3 T.	8.8 T.
Crop acres per cow	_____A.	3.1 A.	2.9 A.
Fertilizer & lime per crop acre	$_____	$24	$26
Heifers as % of cow numbers	_____%	69%	75%

The average cost of feed bought per cow in 1978 was $408, while in 1977 it was $377. The percent that feed bought is of milk sales was 28 percent in 1978 and in 1977.

The crop situation in 1978 was good. Tons of hay equivalent produced per cow was 8.3 tons compared with 7.6 tons in 1977. Crop acres per cow averaged 3.1.

Feed costs include all feed for cows and heifers. Per cow costs are influenced markedly by the number of replacements on hand. Heifers as percent of cow numbers must be considered when evaluating most of the per cow factors. For 1978, there were 69 percent as many heifers as cows.

The 10 percent of farms with highest labor and management incomes spent more for crops and for feed bought than the 527 farm average, but the feed and crop expense per cwt. milk sold was 11¢ less than the average of all farms.

Feed cost is influenced by a number of factors. On the production side, it is affected by the amount of homegrown grains, quality and quantity of the roughage, and the number of youngstock. On the purchasing side, it is influenced by the farmer's ability to purchase concentrates at reasonable prices.

Feed bought per cow is calculated by dividing the total expense for dairy concentrate by the average number of cows. Because this also includes the amount spent for calf and heifer feed, it actually represents the feed cost per cow and the replacements being raised.

Crop expense per cow is the total spent for fertilizer and lime, seeds and plants, spray, and other crop expense divided by the average number of cows. This represents the direct cash costs for growing feed.

Feed purchased as percent of milk receipts is calculated by dividing feed purchased by milk receipts. This measure can be used as an indicator of whether feed costs are in line. The amount of homegrown grain must be considered as you evaluate this measure. Milk prices also influence this factor.

Hay equivalent per cow is calculated by converting all hay crop silage, green chop, and corn silage to a dry hay equivalent and adding it to the tons of dry hay harvested. Total tons of hay equivalent is divided by the average number of cows.

Crop acres per cow is the total acres of cropland harvested divided by the average number of cows.

Heifers as percent of cow numbers is figured by dividing the number of heifers by the number of cows and multiplying by 100.

Table 30. PERCENT PURCHASED FEED IS OF MILK RECEIPTS AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

% Feed is of Milk	Number of Farms	Number of Cows	H.E. Per Cow	Lbs. Milk Per Cow	Labor & Management Income Per Operator
Over 40%	41	63	7.9	13,400	$11,500
35 to 39	75	74	8.3	13,800	16,900
30 to 34	138	72	8.3	13,800	19,200
25 to 29	122	67	8.3	13,700	20,100
20 to 24	74	68	7.9	13,500	23,200
Under 20%	77	81	8.9	13,600	22,100

Generally, the lower the percent of the milk check going for purchased feed, the higher the income (table 30). From the 1978 data, the best income was for farms spending 20 to 24 percent of their milk check for feed.

Machinery Costs

Machinery accounted for 19 percent of the farm inventory on these 527 farms, and the new purchases in 1978 averaged about $13,000 per farm. The cost of owning and operating this machinery accounted for about one-sixth of the total farm expenses. An examination of the machinery costs is a key part of a systematic analysis of a dairy farm business.

Table 31. MACHINERY COST
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms Amount	Average 527 Farms Percent	Average Top 10% Farms
Depreciation (from p. 7)	$_____	$ 6,301	31	$ 7,291
Interest @ 7% on average inventory	_____	3,973	20	5,561
Machine hire	_____	867	4	1,461
Machinery repairs	_____	5,522	27	7,701
Auto expense (farm share)	_____	359	2	308
Gas and oil	_____	3,293	16	4,754
Total Machinery Costs	$_____	$20,315	100	$27,076
Machinery cost:				
per cow	$_____	$286		$263
per cwt. milk sold	$_____	$2.07		$1.81

The machinery depreciation calculations were shown on page 7. Depreciation accounted for 31 percent of the total machinery costs and interest 20 percent. These two fixed cost items are often overlooked in a casual look at operating costs. Repairs were the second largest cost item and one which must be kept in line if costs are to be kept under control.

Machinery costs averaged $286 per cow, but 19 farms had costs of under $150, while 52 had costs of $400 and over. In genral, farms with about average machinery costs per cow had the highest labor and management income per operator.

Table 32. MACHINERY COST PER COW AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Machinery Cost Per Cow	Number of Farms	Percent of Farms	Labor & Management Income Per Operator
Under $150	19	4	$12,940
$150 to $199	59	11	19,970
$200 to $249	105	20	24,230
$250 to $299	142	27	21,651
$300 to $349	96	18	21,973
$350 to $399	54	10	17,068
$400 to $449	21	4	13,265
$450 & over	31	6	7,478

Labor Costs

Labor costs are sometimes overlooked in a farm business analysis. This is understandable since the farm family often provides a large part of the labor input. On these 527 farms, the family (including paid family labor) provided 69 percent of the months of labor inputs, while hired nonfamily labor provided 31 percent (page 5). Family labor does have a value and in this section an analysis is made of the cost of all labor inputs.

Table 33. LABOR COSTS
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms Amount	Average 527 Farms Percent	Average Top 10% Farms
Value operator's labor (@ $650/month)	$_____	$ 9,100	48	$ 8,450
Hired labor expense (from p. 10) (includes paid family labor)	_____	8,618	45	18,340
Unpaid family labor @ $425/month	_____	1,275	7	850
Total Labor Costs	$_____	$18,993	100	$27,640
Labor cost per cow	$_____	$268		$268
Labor cost per cwt. milk	$_____	$1.94		$1.84
Cost per month hired labor	$_____	$718		$797
Cost per month all labor	$_____	$655		$727

The operator's labor was valued at $650 per month, and unpaid family labor was valued at $425 per month. These are relatively low, but the unpaid labor is usually children or wives who would find it difficult to earn more than this amount off the farm with the hours they have available for work. The top 10 percent farms paid $79 per month more for hired labor than the average of the 527 farms (table 33).

Labor and machinery operate as a "team" so the challenge is to get a combination that will give a reasonable cost per unit of milk sold. On these 527 farms, the machinery costs were higher than the labor. The labor and machinery costs for the top 10 percent farms were 36¢ per cwt. of milk, less than the average for all farms.

Table 34. LABOR AND MACHINERY COSTS
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms	Average Top 10% Farms
Total labor cost	$_____	$18,993	$27,640
Total machinery cost	_____	20,315	27,076
Total Labor and Machinery Costs	$_____	$39,308	$54,716
Labor and machinery cost per cow	$_____	$554	$531
Labor and machinery cost/cwt. milk	$_____	$4.01	$3.65

Miscellaneous Costs

Costs in addition to feed, machinery, and labor make up a sizeable amount on a dairy farm. The "cost conscious" manager checks on all cost items both large and small. A number of miscellaneous cost items are reported in table 35 below to help in a detailed checkup on all farm costs.

Table 35. MISCELLANEOUS COST CONTROL MEASURES
527 New York Dairy Farms, 1978

Item	My Farm	Average 527 Farms	Average Top 10% Farms
Livestock			
Breeding fees per cow	$_____	$18	$20
Veterinary & medicine per cow	_____	26	28
Other livestock expense per cow	_____	51	56
Milk marketing per cow	_____	41	47
Milk marketing per cwt/milk	_____¢	30¢	32¢
Real Estate			
Taxes per cow	$_____	$37	$34
Taxes per $1,000 year-end real estate value	_____	16	16
Cash rent paid per farm	_____	$1,408	$2,316
Cash rent paid per cow	_____	20	22
Cash rent paid per crop acre rented	_____	24	21
Real estate expense/cow	$_____	$108	$106
Capital Cost			
Interest paid per cow	$_____	$115	$106
Interest on equity per cow	_____	209	227
Interest paid as % year-end debt	_____	6.5%	6.8%
Insurance paid per cow	_____	25	23
Kinds of Expense			
Capital expenses per cow	$_____	$ 453	$ 443
Fixed operating expenses per cow	_____	140	136
Variable operating expenses per cow	_____	1,031	1,090
Total farm expenses per cow	_____	1,624	1,669

It is of interest to observe that the livestock expense items for the top 10 percent of the farms were slightly higher than those for all 527 farms. These are probably related to better care and higher production per cow. For most of the real estate and capital cost items per unit were less for the top 10 percent of the farms. This is likely related to efficient use of the capital on these farms. Better cost control of all items may have been a contributing factor to these farms having been in the top 10 percent on the basis of labor and management income per operator.

It is important to control the little costs as well as the big costs!!

Combination of Factors

Individual factors have been examined in the analysis up to this point. It has been suggested that these factors are interrelated. In this section, the combination of four important factors is studied. The factors used here are size, rates of production, labor efficiency, and cost control as measured by number of cows, pounds of milk sold per cow, pounds of milk sold per man, and percent purchased feed was of milk receipts.

For each factor, the farms were divided on the basis of whether they were above or below the average for the 527 farms. They were then grouped on the basis of the number of factors better than average. The combination of factors above or below average within the three middle groups varied.

Table 36. COMBINATION OF FACTORS ABOVE AVERAGE* AND LABOR AND MANAGEMENT INCOME 527 New York Dairy Farms, 1978

Number of Factors Above Average	Number of Farms	Percent of Farms	Labor & Management Income Per Operator
4 Factors better than average	46	9%	$30,900
3 Factors better than average	108	20	28,700
2 Factors better than average	148	28	18,700
1 Factor better than average	148	28	14,400
0 Factors better than average	77	15	10,800

* Factors were:
Size - number of cows - average 71.
Rates of production - pounds of milk sold per cow - average 13,800.
Labor efficiency - pounds of milk sold per man - average 404,800.
Cost control - percent purchased feed was of milk receipts - average 28%.

The relationship between the number of factors better than average and labor and management income is shown in table 36. As the number of factors better than average decreased, labor incomes decreased at a rapid rate. It is important in managing a farm business to give attention to all major factors affecting the business. Concentrating on only one or two factors and neglecting the others will not give the kind of net return most farmers want.

Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing a business to determine the strong and weak points. The figure at the top of each column is the average of the top 10 percent of the 527 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the top 10 percent for any other factor.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
527 New York Dairy Farms, 1978

Size of Business			Rates of Production			Labor Efficiency	
Man Equiv-alent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crops Per Acre	Tons Corn Silage Per Acre	Cows Per Man	Pounds Milk Sold Per Man
5.0	168	2,333,700	17,100	4.4	20	44	631,900
3.4	106	1,499,800	15,800	3.4	17	37	518,900
2.9	83	1,188,200	15,200	3.0	16	33	473,100
2.5	70	1,004,200	14,700	2.7	15	31	434,000
2.3	62	875,000	14,100	2.5	14	29	403,100
2.0	55	769,700	13,600	2.3	13	27	373,500
2.0	50	671,400	13,000	2.1	12	25	340,700
1.7	44	578,000	12,400	1.9	11	23	306,000
1.5	39	487,500	11,300	1.7	9	21	264,200
1.2	31	352,100	9,400	1.2	6	17	192,400

Feed Bought		Machinery Cost	Labor and Machinery Cost	Feed and Crop Expense Per
Per Cow	% of Milk Receipts	Per Cow	Per Cow	Cwt. Milk
$178	13%	$151	$382	$2.36
263	20	197	443	2.98
322	24	226	482	3.24
371	26	250	517	3.48
398	28	271	541	3.67
424	30	288	565	3.85
455	32	311	598	4.04
489	34	338	636	4.29
539	37	376	695	4.62
644	43	476	826	5.27

The cost control factors are ranked from low to high, but the lowest cost is not necessarily the most profitable. Many things affect the level of costs, and these items must be taken into account when analyzing the factors.

This chart can be used to analyze a dairy business by drawing a line through the figure in each column which represents the level of management for this farm.

SUPPLEMENTAL INFORMATION

The farm business records include information in addition to that used in the summary and analysis sections. These data are useful in studies of dairy farming. Selected items are reported in the "supplemental information" section.

Age of Individual Operators

Age of operator is a factor that affects management. Data on age of individual farm operators and business factors are on page 31.

Education of Operators

The 1978 record forms included space for reporting the years of formal education of the operators and 453 of the 527 farms provided the information. Data on education and related business factors are on pages 32 and 33.

Financial Situation

Information on percent equity and debt per cow and its relation to business factors is reported on pages 34 and 35.

Cost of Producing Milk

The average cost of producing milk in 1978, calculated from the farm business summaries for the 527 farms, and comparisons by herd size and rates of production are on pages 36 and 37.

Comparison by Herd Size

The business summary, business factors, and financial situation for nine herd size groups are shown on pages 38 to 43.

Farms With Free Stall Barns

The 1978 Summary reported 182 farms with free stall barns. Comparisons of the farms with free stall and stanchion barn facilities are on page 44.

Milking Systems

Cooperators report the kind of milking system they use. The 527 farms were sorted by type of milking system and factors are reported on page 45.

Type of Business Organization

Summaries for the three business types; individual operators, partnerships, and corporations are on pages 46 and 47.

Same Farms for 1977 and 1978

Of the 527 farms in the 1978 Summary, 365 had been in the 1977 Summary. A comparison of the 1977 and 1978 businesses of the same farms is reported on pages 48 and 49.

Trends

One way to observe trends is to compare similar business studies that have been made. On page 50, selected farm business summary factors are given for 1958, 1968, 1973, and 1978.

Operating Statements

Operating statements for several groups of farms are on pages 51 to 56. These include: farms with over 200 cows; dairy-cash-crop farms; dairy renters; top 10 percent farms based on labor incomes; and the average of the 527 farms.

Age of Individual Operators

Table 37. AGE OF INDIVIDUAL OPERATORS AND LABOR INCOME
527 New York Dairy Farms, 1978

Age of Individual Operator	Number of Farms	Number of Cows	Lbs. Milk Sold Per Cow	Lbs. Milk Sold Per Man	Labor and Management Income Per Operator
Under 30	40	46	13,400	352,000	$16,070
30 to 34	72	63	14,100	426,000	26,230
35 to 39	89	62	14,100	387,800	21,900
40 to 44	76	63	13,800	372,700	20,350
45 to 49	62	71	13,700	418,300	17,600
50 to 54	44	74	14,000	388,000	20,580
55 to 59	30	70	13,900	388,000	21,770
60 & over	16	77	13,600	358,600	24,490

Table 38. AGE OF INDIVIDUAL OPERATOR AND RELATED BUSINESS FACTORS
527 New York Dairy Farms, 1978

Age of Individual Operator	Percent Free Stall Barns	Total Capital Per Cow	Feed Bought Per Cow	Machinery Cost Per Cow	Labor Cost Per Cow	Total Expense Per Cow
Under 30	8%	$4,500	$410	$278	$261	$1,590
30 to 34	25	4,400	417	272	250	1,620
35 to 39	31	4,400	442	281	260	1,660
40 to 44	28	4,400	390	307	293	1,650
45 to 49	37	4,800	386	300	269	1,660
50 to 54	50	4,500	431	283	288	1,640
55 to 59	40	4,700	378	295	294	1,610
60 & over	31	4,300	463	265	304	1,640

Table 39. AGE OF INDIVIDUAL OPERATOR AND FINANCIAL SITUATION
527 New York Dairy Farms, 1978

Age of Individual Operator	Total Farm Inventory	Percent Equity	Debt Per Cow	% Milk For Debt Payment	Available For Debts & Living
Under 30	$207,800	47%	$2,480	26%	$21,700
30 to 34	285,200	51	2,280	23	31,400
35 to 39	287,500	60	1,880	24	32,290
40 to 44	284,550	68	1,540	20	30,800
45 to 49	342,000	70	1,560	20	34,500
50 to 54	334,100	64	1,700	23	34,100
55 to 59	322,300	80	1,040	13	35,800
60 & over	332,200	85	760	13	34,300

Education of Operators

In 1978, for the first time, a space was provided for reporting the years of education of the operators. A total of 453 of the 527 farms reported the years of formal education. The average education of all operators reporting was 13 years. For the tables below, the age of the senior partner on farms with partnerships or corporations was used for sorting the farms by education.

Table 40. EDUCATION OF OPERATOR AND LABOR INCOME
453 New York Dairy Farms, 1978

Years of Education of Operator	Farms		Estimated Value of Operator's Labor & Management*	Labor and Management Income/Operator
	Number	Percent		
Less than 12	43	9	$12,300	$17,047
12	230	51	12,300	18,950
13 to 14	98	22	13,100	21,879
15 to 16	72	16	13,600	24,642
Over 16	10	2	14,600	10,960

* Estimated by the farm operator.

Table 41. EDUCATION OF OPERATOR AND RELATED BUSINESS FACTORS
453 New York Dairy Farms, 1978

Years of Education of Operator	Average Age of Operator*	Average Number		Pounds Milk Sold	
		Operators	Cows	Per Cow	Per Man
Less than 12	48	1.16	74	13,000	372,000
12	44	1.19	66	13,800	390,000
13 to 14	40	1.24	72	13,900	399,000
15 to 16	41	1.26	87	14,300	414,000
Over 16	38	1.10	46	14,800	355,000

* Senior partner if more than one operator.

Table 42. EDUCATION OF OPERATOR AND FINANCIAL SITUATION
453 New York Dairy Farms, 1978

Years of Education of Operator	Total Farm Inventory 1/79	Percent Equity	Farm Debt Per Cow	Debt Payment As Percent of Milk Receipts
Less than 12	$317,036	64%	$1,639	21%
12	307,070	66	1,696	21
13 to 14	328,523	64	1,788	20
15 to 16	383,867	62	1,771	21
Over 16	207,269	47	2,549	23

In general, the more years of education of the farm operator the higher the labor and management income.

Table 43. AGE AND EDUCATION OF INDIVIDUAL OPERATORS AND RELATED FACTORS
368 New York Dairy Farms, 1978

Operator's Age and Years of Education	Farms		Number of Cows	Lbs. Milk Sold		Labor & Mgt. Income Per Operator
	Number	Percent		Per Cow	Per Man	
Under 40						
Less than 12	9	5%	74	13,400	395,600	$22,324
12	83	48	52	13,700	370,200	$18,498
13 or more	81	47	66	14,000	408,000	$26,598
40 to 49						
Less than 12	14	12	62	13,800	411,400	$18,467
12	65	55	62	14,000	386,800	$19,486
13 or more	39	33	79	13,700	405,400	$20,885
50 & over						
Less than 12	14	18	69	14,100	402,300	$26,001
12	42	55	73	13,700	388,800	$22,066
13 or more	21	27	75	13,600	370,200	$19,669

The amount of formal education has increased over the years, which suggests that the younger farmers have more education. Of the 173 individual operators under 40 years of age, 47 percent had some college education, but of the farmers 50 and over only 27 percent had some college. In the older group, 18 percent had not completed high school, compared with 5 percent of the younger farmers.

For the operators under 40, and 40 to 49, those with some college education had larger farms, sold more milk per man, had more money available for debts and family living, and higher labor incomes than the high school graduates, but those over 50 with some college education made less than the high school graduates.

Table 44. AGE AND EDUCATION OF INDIVIDUAL OPERATORS AND FINANCIAL SITUATION
368 New York Dairy Farms, 1978

Operator's Age and Years of Education	Total Farm Inventory	Percent Equity	Farm Debt Per Cow	Percent Debt Payment is of Milk	Available for Debts & Living
Under 40					
Less than 12	$307,400	60%	$1,670	25%	$39,580
12	240,690	56	2,100	25	26,170
13 or more	298,340	52	2,290	25	31,740
40 to 49					
Less than 12	$254,140	59%	$1,740	22%	$31,110
12	310,280	69	1,620	20	31,730
13 or more	348,220	71	1,420	20	36,050
50 & over					
Less than 12	$307,500	69%	$1,500	19%	$36,980
12	324,450	75	1,230	16	34,880
13 or more	317,050	72	1,250	18	33,730

Financial Situation

Each cooperator submits a financial statement as a part of the business record. A general summary is on pages 15 and 16. A brief analysis by percent equity and debt per cow are reported here.

Table 45. FARM DEBT PER COW AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Farm Debt Per Cow	Number of Farms	Number of Cows	Lbs. Milk Sold Per Cow	Lbs. Milk Sold Per Man	Labor & Management Income Per Operator
None	21	50	13,200	344,300	$16,300
$1 to $599	71	66	14,000	381,000	20,200
$600 to $1,199	89	74	14,300	411,600	21,100
$1,200 to $1,799	106	81	13,600	399,500	24,200
$1,800 to $2,399	87	76	13,700	415,900	20,900
$2,400 to $2,999	79	65	13,900	416,800	19,606
$3,000 and over	74	62	14,000	371,200	13,866

Twenty-one or about four percent of the farms reported no debt. In general, the cooperators used credit with a wide variation in the amounts used. The farms were sorted on the basis of debt per cow. The farms with debts per cow of $1,200 to $1,800 had the highest labor income along with the largest number of cows (table 45). The debt per cow seemed to relate closely to age of operator.

Table 46. FARM DEBT PER COW AND RELATED BUSINESS FACTORS
527 New York Dairy Farms, 1978

Farm Debt Per Cow	Age of Operator	Percent Equity	Debt Payment Per Cow	Debt Payment % Milk	Available for Debts and Living
None	47	100%	$ 0	0%	$29,700
$1 to $599	43	93	115	8	35,400
$600 to $1,199	43	80	200	14	40,800
$1,200 to $1,799	43	67	290	20	39,600
$1,800 to $2,399	39	55	360	26	34,400
$2,400 to $2,999	40	50	400	29	32,100
$3,000 and over	36	39	460	32	28,800

There was a wide range in percent equity among the 527 farms. Seventy-five farms had less than 40 percent equity and these were the younger operators. The farms with 60 to 79 percent equity had the highest labor and management incomes per operator (table 47). The lowest labor incomes were for the farms with 100 percent equity, which had the smallest number of cows, and the farms with less than 40 percent equity.

Table 47. PERCENT EQUITY AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Percent Equity*	Number of Farms	Number of Cows	Age of Operator	Debt Per Cow	Labor & Management Income Per Operator
Less than 40%	75	62	36	$3,200	$16,630
40 to 49	62	74	39	2,500	18,230
50 to 59	96	73	40	2,200	21,720
60 to 69	79	85	41	1,700	22,950
70 to 79	65	77	44	1,200	22,140
80 to 89	76	65	43	800	17,400
90 to 99	54	62	44	280	21,300
100%	20	49	47	0	16,400

*Based on family net worth.

Table 48. PERCENT EQUITY AND RELATED BUSINESS FACTORS
527 New York Dairy Farms, 1978

Percent Equity	Lbs. Milk Sold Per Cow	Lbs. Milk Sold Per Man	% Feed is of Milk	End Inventory Per Cow: Total Amount	End Inventory Per Cow: Land & Bldgs.	End Inventory Per Cow: Machinery & Equipt.
Less than 40%	13,500	385,700	31%	$4,400	$2,300	$800
40 to 49	13,300	408,000	29	4,300	2,200	760
50 to 59	13,800	418,000	27	4,400	2,300	750
60 to 69	13,600	409,000	29	4,500	2,200	830
70 to 79	14,500	418,000	27	4,400	2,100	900
80 to 89	14,300	384,000	27	4,800	2,500	900
90 to 99	14,100	375,000	27	4,600	2,200	900
100%	13,600	348,000	29	4,500	2,100	960

Table 49. PERCENT EQUITY AND DEBT PAYMENT SITUATION
527 New York Dairy Farms, 1978

Percent Equity	Available for Debts & Living	Scheduled Annual Debt Payments: Total Amount	Payments Per Cow	As Percent of Milk	As Percent Available
Less than 40%	$27,000	$27,400	$430	32%	101%
40 to 49	34,000	30,230	400	29	89
50 to 59	34,500	27,400	360	26	79
60 to 69	40,700	26,600	300	21	65
70 to 79	42,800	19,600	250	17	46
80 to 89	35,600	12,300	180	13	35
90 to 99	34,700	6,365	100	7	18
100%	30,000	0	0	0	0

Farm operators with less than 60 percent equity have heavy debt commitments. Debt payments of $350 or more per cow and more than 25 percent of the milk receipts mean there is limited amounts left for operating purposes. Living has a high priority on available funds but the low equity farms averaged 101 percent of available funds needed for debt payments.

Cost of Producing Milk

The "farm unit" method is used here to compute cost of producing milk. Farm expenses include all costs except the operator's labor and management. Non-milk receipts are deducted on the assumption they were produced at cost.

Table 50. FARM COST OF PRODUCING MILK
527 New York Dairy Farms, 1978

Item	Av. 527 Farms		My Farm	
Total cash farm expenses (p. 10)	$ 90,143		$_____	
Machinery depreciation	6,301		_____	
Building depreciation	2,906		_____	
Unpaid labor	1,275		_____	
Interest on equity capital @ 7%	14,818		_____	
TOTAL FARM EXPENSES	$115,443		$_____	
Value Operator's Labor @ $650/mo.	9,100		_____	
TOTAL COST OF PRODUCTION (1)		$124,543		$_____
Total cash farm receipts (p. 8)	$117,244		$_____	
Less: Milk sales	102,934		_____	
Non-milk cash receipts	14,310		_____	
Increase feed & supplies	3,942		_____	
Increase of 1 cow @ $1,047	1,047		_____	
TOTAL OTHER INCOME (2)		19,299		_____
COST OF PRODUCING MILK (1 minus 2)		$105,244		$_____
Hundredweights of milk sold (p. 18)	9,795		_____	
COST OF PRODUCING CWT. MILK		$10.74		$_____
Management charge @ 5% cash receipts	$5,862		$_____	
Management charge cwt. milk	60¢		_____¢	
COST OF PRODUCING MILK WITH MGT. CHARGE		$11.34		$_____

Changes in cattle prices can cause a change in livestock inventories even though there are no changes in cattle numbers. To correct for this, the dollar change in livestock inventory is omitted and the change in cow numbers (increase of one cow) is valued at the average year-end livestock inventory value per cow (includes replacement heifers) and included as non-cash income. For 1978, the increase in value of the additional cow was $1,047, while the increase in livestock inventories was $18,514.

Table 51. COST OF PRODUCING MILK AND PRICES RECEIVED, 1973-1978

	Value Operator's		Cost/Cwt. With Management		Average Price	
Year	Labor	Management*	Excluded	Included	Received	Reported
1973	$6,000	$3,689	$ 7.26	$ 7.69	$ 7.30	$ 7.30
1974	6,000	4,330	8.34	8.82	8.57	8.24
1975	6,000	4,474	9.07	9.55	8.65	8.64
1976	6,000	5,162	9.87	10.42	9.90	9.71
1977	7,200	5,212	10.55	11.09	9.76	9.61
1978	7,800	5,862	10.74	11.34	10.51	10.38

*Estimated @ 5% of cash receipts.

Farm expenses do not include any charge for management. The farm operator's labor is valued at hired worker rates. The management input is an important part of any business operation and is traditionally a part of the costs in business accounting. In this analysis, a management charge was computed on the basis of 5 percent of the cash receipts. In some areas, management services are provided for absentee owners on the basis of 5 to 8 percent of the receipts. The management charge amounted to an average of 60 cents per cwt. of milk.

Table 52. FARM COST OF PRODUCING MILK BY HERD SIZE
527 New York Dairy Farms, 1978

Number of Cows	Cost/Cwt. With Management		Average Price Received
	Excluded	Included	
Under 40	$12.11	$12.71	$10.40
40 to 54	11.24	11.83	10.29
55 to 69	10.59	11.18	10.38
70 to 84	10.56	11.15	10.47
85 to 99	10.94	11.55	10.64
100 to 114	10.65	11.25	10.44
115 to 129	10.17	10.75	10.49
130 to 149	10.35	10.94	10.46
150 & over	10.66	11.28	11.02

Size is an important factor in the analysis of farm businesses. The costs of producing milk were computed for nine herd size groups (table 52). In general, the larger herds had lower costs. The average cost excluding management was $12.11 for herds with under 40 cows, while it was $10.17 for those with 115 to 129 cows, or a difference of $1.94 per cwt.

Rates of milk production is also a major business factor so costs were computed by levels of production (table 53). The spread here was even greater than for size. Farms selling less than 10,000 pounds of milk per cow had an average cost of production of $14.04, while those selling 15,000 to 15,999 averaged $10.13 or a difference of $3.91 per cwt.

Table 53. FARM COST OF PRODUCING MILK BY MILK SOLD PER COW
527 New York Dairy Farms, 1978

Pounds of Milk Sold Per Cow	Cost/Cwt. With Management		Average Price Received
	Excluded	Included	
Under 10,000	$14.04	$14.71	$11.58
10,000 to 10,999	12.30	12.96	10.58
11,000 to 11,999	11.88	12.52	10.99
12,000 to 12,999	10.91	11.50	10.42
13,000 to 13,999	10.82	11.41	10.46
14,000 to 14,999	10.27	10.86	10.40
15,000 to 15,999	10.13	10.72	10.44
16,000 and over	10.50	11.10	10.49

Table 54. FARM BUSINESS SUMMARY BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Capital Investment (end of year)				
Livestock	$ 35,739	$ 52,755	$ 65,255	$ 78,468
Feed and supplies	8,173	13,258	19,892	28,543
Machinery and equipment	30,530	42,334	56,067	70,121
Land and buildings	89,130	119,477	144,548	187,022
TOTAL INVESTMENT	$163,572	$227,824	$285,762	$364,154
Receipts				
Milk sales	$ 44,369	$ 64,277	$ 88,791	$113,625
Dairy cattle sold	3,822	5,553	8,146	9,008
Other livestock sales	1,260	1,481	1,623	2,366
Crop sales	327	610	855	659
Miscellaneous receipts	1,474	1,612	1,969	2,739
Total Cash Receipts	$ 51,252	$ 73,533	$101,384	$128,397
Increase in livestock	9,421	13,303	15,071	17,986
Increase in feed & supplies	1,470	2,855	4,074	4,797
TOTAL FARM RECEIPTS	$ 62,143	$ 89,691	$120,529	$151,180
Expenses				
Hired labor	$ 1,371	$ 2,682	$ 5,625	$ 9,875
Dairy feed	12,936	18,960	24,903	31,012
Other feed	830	1,067	1,242	1,048
Machine hire	299	476	637	1,081
Machinery repair	2,287	3,202	4,783	6,270
Auto expense (farm share)	281	308	283	374
Gas and oil	1,534	1,996	2,823	3,497
Purchased animals	2,402	3,242	2,776	1,885
Breeding fees	606	912	1,085	1,338
Veterinary and medicine	841	1,236	1,559	1,953
Milk marketing	1,218	1,581	2,516	3,161
Other livestock expense	1,734	2,543	3,185	4,233
Fertilizer and lime	1,922	2,788	4,508	6,902
Seeds and plants	612	1,044	1,525	2,101
Spray and other crop expense	327	744	877	1,455
Land, bldg, fence repair	1,085	1,091	1,708	2,158
Taxes and insurance	2,304	3,068	3,752	4,805
Electric & phone (farm share)	1,218	1,622	2,098	2,548
Interest paid	3,190	5,806	7,232	8,654
Miscellaneous expenses	885	1,467	2,190	3,321
Total Cash Expenses	$ 37,882	$ 55,835	$ 75,307	$ 97,671
Machinery depreciation	3,077	4,280	5,626	6,504
Building depreciation	1,283	1,835	2,574	2,957
Unpaid family labor	1,700	1,700	1,275	850
Interest on equity @ 7%	8,070	10,171	12,801	17,303
Decrease in feed & supplies	--	--	--	--
TOTAL FARM EXPENSES	$ 52,012	$ 73,821	$ 97,583	$125,285
Financial Summary				
Total Farm Receipts	$ 62,143	$ 89,691	$120,529	$151,180
Total Farm Expenses	52,012	73,821	97,583	125,285
Labor & Mgt. Income	$ 10,131	$ 15,870	$ 22,946	$ 25,895
Number of operators	1.03	1.10	1.24	1.28
LABOR & MGT. INCOME/OPERATOR	$ 9,865	$ 14,480	$ 18,505	$ 20,246

Table 54. contd. FARM BUSINESS SUMMARY BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: 85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
Capital Investment (end of year)					
Livestock	$ 97,347	$121,909	$119,719	$141,329	$190,365
Feed and supplies	30,205	35,548	41,538	45,886	64,626
Machinery and equipment	74,732	87,843	93,068	99,001	132,126
Land and buildings	207,813	233,434	253,252	280,079	367,009
TOTAL INVESTMENT	$410,097	$478,734	$507,577	$566,295	$754,126
Receipts					
Milk sales	$131,892	$154,734	$178,211	$209,111	$292,088
Dairy cattle sold	12,876	14,438	12,279	17,746	23,754
Other livestock sales	2,776	4,671	2,549	3,182	5,066
Crop sales	1,537	1,051	1,479	944	2,102
Miscellaneous receipts	2,717	3,977	3,514	5,236	7,646
Total Cash Receipts	$151,798	$178,871	$198,032	$236,219	$330,656
Increase in livestock	22,212	35,079	29,387	34,682	46,650
Increase in feed & supplies	2,474	8,471	5,959	3,937	9,566
TOTAL FARM RECEIPTS	$176,484	$222,421	$233,378	$274,834	$386,872
Expenses					
Hired labor	$ 12,139	$ 14,607	$ 18,495	$ 24,385	$ 41,507
Dairy feed	36,223	48,215	46,532	58,126	78,730
Other feed	2,093	3,096	3,003	2,422	3,797
Machine hire	1,325	1,025	950	972	3,918
Machinery repair	8,028	8,105	9,079	12,487	15,440
Auto expense (farm share)	584	523	448	379	572
Gas and oil	4,808	4,963	5,854	6,361	9,147
Purchased animals	2,219	8,158	4,912	4,120	9,642
Breeding fees	1,764	1,938	2,186	2,640	3,151
Veterinary and medicine	2,419	2,870	3,102	4,394	4,704
Milk marketing	4,026	3,733	5,333	5,473	9,729
Other livestock expense	4,170	5,089	5,572	6,937	9,295
Fertilizer and lime	7,551	7,293	7,886	9,950	16,339
Seeds and plants	2,415	2,844	2,785	3,767	5,176
Spray and other crop expense	1,583	2,026	2,815	3,429	4,364
Land, bldg., fence repair	2,524	1,957	2,740	4,565	4,788
Taxes and insurance	5,970	5,919	7,178	8,028	11,419
Electric & phone (farm share)	3,176	3,258	3,914	3,406	5,161
Interest paid	10,676	13,477	12,395	14,610	20,567
Miscellaneous expenses	3,854	4,016	5,995	5,297	8,626
Total Cash Expenses	$117,547	$143,112	$151,174	$181,748	$266,072
Machinery depreciation	9,155	9,979	9,912	10,443	15,674
Building depreciation	3,284	5,885	4,293	7,095	7,289
Unpaid family labor	850	1,700	425	425	850
Interest on equity @ 7%	19,641	21,224	24,274	28,063	32,855
Decrease in feed & supplies	--	--	--	--	--
TOTAL FARM EXPENSES	$150,477	$181,900	$190,078	$227,774	$322,740
Financial Summary					
Total Farm Receipts	$176,484	$222,421	$233,378	$274,838	$386,872
Total Farm Expenses	150,477	181,900	190,078	227,774	322,740
Labor & Mgt. Income	$ 26,007	$ 40,521	$ 43,300	$ 47,064	$ 64,132
Number of operators	1.38	1.25	1.58	1.44	1.41
LABOR & MGT. INCOME/OPR	$ 18,818	$ 32,417	$ 27,440	$ 32,752	$ 45,387

Table 55. SELECTED BUSINESS FACTORS BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Number of farms	73	156	104	68
Size of Business				
Number of cows	33	46	61	75
Number of heifers	22	31	41	54
Pounds of milk sold	426,800	624,700	855,100	1,085,500
Man equivalent	1.6	1.8	2.3	2.6
Total work units	370	512	677	839
Total crop acres	111	147	199	244
(Crop acres rented)	(17)	(29)	(50)	(70)
Rates of Production				
Milk sold per cow	12,930	13,600	14,000	14,500
Tons hay crops per acre	2.1	2.3	2.4	2.6
Tons corn silage per acre	13.0	13.2	13.3	14.2
Bushels of oats per acre	55	72	58	61
Labor Efficiency				
Cows per man	21	25	27	29
Pounds milk sold per man	270,100	341,400	380,000	420,700
Work units per man	234	280	301	325
Feed Costs				
Feed purchased per cow	$392	$412	$408	$413
Crop expense per cow	$87	$99	$113	$139
Feed cost per cwt. milk	$3.03	$3.04	$2.91	$2.86
Feed & crop exp./cwt. milk	$3.70	$3.77	$3.72	$3.82
% feed is of milk receipts	29%	29%	28%	27%
Hay equivalent per cow	7.8	8.3	8.5	8.8
Crop acres per cow	3.4	3.2	3.3	3.3
Fertilizer & lime/crop acre	$17	$19	$23	$28
Machinery and Labor Costs				
Total machinery costs	$9,501	$13,110	$17,825	$22,372
Machinery cost per cow	$288	$285	$292	$298
Machinery cost/cwt. milk	$2.23	$2.10	$2.08	$2.06
Labor cost per cow	$329	$279	$273	$273
Labor cost per cwt. milk	$2.55	$2.05	$1.95	$1.89
Capital Efficiency				
Investment per man	$103,500	$124,500	$127,000	$141,100
Investment per cow	$4,800	$4,850	$4,600	$4,860
Investment per cwt. milk	$38	$36	$33	$34
Land & buildings per cow	$2,620	$2,540	$2,330	$2,490
Machinery investment/cow	$900	$900	$900	$935
Capital turnover	2.6	2.5	2.4	2.4
Other				
Price per cwt. milk sold	$10.40	$10.29	$10.38	$10.47
Acres hay crops	85	99	123	140
Acres corn silage	22	37	52	66
Inventory changes 1978*:				
Number of cows	0	0	0	+1
Invt. value per cow**	+$277	+$348	+$243	+$229

* Change from 1/1/78 to 1/1/79.
** Livestock inventory includes heifers.

Table 55. contd. SELECTED BUSINESS FACTORS BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: 85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
Number of farms	34	28	19	16	29
Size of Business					
Number of cows	91	106	121	138	195
Number of heifers	72	77	90	90	124
Pounds of milk sold	1,240,100	1,482,800	1,699,200	1,999,300	2,651,400
Man equivalent	2.8	3.4	3.5	3.8	5.4
Total work units	1,014	1,183	1,333	1,487	2,064
Total crop acres	271	331	361	382	506
(Crop acres rented)	(83)	(115)	(159)	(111)	(212)
Rates of Production					
Milk sold per cow	13,600	14,000	14,000	14,500	13,600
Tons hay crops per acre	3.0	2.5	2.6	2.5	2.6
Tons corn silage/acre	14.1	13.6	14.4	14.6	14.4
Bushels oats/acre	52	52	64	66	73
Labor Efficiency					
Cows per man	32	31	35	36	36
Pounds milk sold/man	438,200	433,600	485,500	522,000	489,200
Work units per man	358	346	381	388	381
Feed Costs					
Feed purchased per cow	$398	$455	$385	$421	$404
Crop expense per cow	$127	$115	$111	$124	$133
Feed cost per cwt. milk	$2.92	$3.25	$2.74	$2.91	$2.97
Feed & crop exp./cwt. milk	$3.85	$4.07	$3.53	$3.76	$3.95
% feed is of milk receipts	27%	31%	26%	28%	27%
Hay equivalent per cow	8.7	8.9	8.8	8.2	7.7
Crop acres per cow	3.0	3.1	3.0	2.8	2.6
Fertilizer & lime/crop acre	$28	$22	$22	$26	$32
Machinery and Labor Costs					
Total machinery costs	$28,917	$30,361	$32,366	$37,230	$53,376
Machinery cost per cow	$318	$286	$267	$270	$274
Machinery cost/cwt. milk	$2.33	$2.05	$1.90	$1.86	$2.01
Labor cost per cow	$257	$246	$258	$260	$274
Labor cost/cwt. milk	$1.89	$1.76	$1.84	$1.79	$2.01
Capital Efficiency					
Investment per man	$144,900	$140,000	$145,000	$147,900	$139,100
Investment per cow	$4,410	$4,470	$4,100	$4,000	$3,800
Investment/cwt. milk	$33	$32	$30	$28	$28
Land & buildings/cow	$2,235	$2,180	$2,000	$2,000	$1,840
Machinery investment/cow	$800	$820	$750	$700	$660
Capital turnover	2.3	2.2	2.2	2.1	1.9
Other					
Price per cwt. milk sold	$10.64	$10.44	$10.49	$10.46	$11.02
Acres hay crops	141	180	194	198	234
Acres corn silage	80	110	115	130	185
Inventory changes 1978*:					
Number of cows	+3	+1	+4	+1	+3
Invt. value per cow**	+$212	+$320	+$212	+$239	+$222

* Change from 1/1/78 to 1/1/79.
** Livestock inventory includes heifers.

Table 56. FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
527 New York Dairy Farms, January 1, 1979

Item	Farms with: Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Number of farms	73	156	104	68
Assets				
Livestock	$ 35,740	$ 52,755	$ 65,255	$ 78,470
Feed and supplies	8,174	13,258	19,892	28,543
Machinery & equipment	30,530	42,335	56,068	70,121
Land and buildings	89,130	119,478	144,549	187,022
Co-op investment	838	2,393	2,585	3,794
Accounts receivable	3,226	4,828	6,532	8,284
Cash & checking accounts	1,275	1,374	1,971	2,617
Total Farm Assets	$168,913	$236,421	$296,852	$378,851
Savings accounts	2,336	3,254	4,117	3,505
Cash value life insurance	2,376	1,886	2,570	3,131
Stocks and bonds	982	520	1,808	3,695
Nonfarm real estate	2,201	2,698	3,157	4,945
Auto (personal share)	969	1,032	962	1,042
All other	3,816	3,620	4,336	4,843
Total Nonfarm Assets	$ 12,680	$ 13,010	$ 16,950	$ 21,161
TOTAL ASSETS	$181,593	$249,431	$313,802	$400,012
Liabilities				
Real estate mortgage	$ 27,851	$ 53,975	$ 63,209	$ 77,966
Liens on cattle & equipt.	18,893	29,321	38,989	40,351
Installment contracts	1,567	1,913	2,363	2,447
Other loans over 7 years	720	1,317	2,591	2,185
Other loans 1 to 7 years	2,696	2,481	3,040	5,201
Other loans less than 1 year	201	517	1,372	1,787
Feed store & other accounts	1,693	1,592	2,414	1,725
Total Farm Liabilities	$ 53,621	$ 91,116	$113,978	$131,662
Nonfarm Liabilities	412	587	711	729
TOTAL LIABILITIES	$ 54,033	$ 91,703	$114,689	$132,391
Farm Net Worth (Equity Capital)	$115,292	$145,305	$182,874	$247,189
FAMILY NET WORTH	$127,560	$157,728	$199,113	$267,621
Financial Measures				
Percent equity	70%	63%	63%	67%
Farm debt per cow	$1,577	$1,898	$1,809	$1,755
Available for debt service and living	$16,555	$23,498	$33,303	$39,376
Scheduled annual debt payment	$9,140	$14,216	$19,411	$23,752
Scheduled debt payment/cow	$269	$296	$308	$317
Scheduled debt payment as percent of milk check	21%	22%	22%	21%

Table 56. contd. FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
527 New York Dairy Farms, January 1, 1979

Item	Farms with: 85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
Number of farms	34	28	19	16	29
Assets					
Livestock	$ 97,349	$121,910	$119,720	$141,329	$190,366
Feed and supplies	30,206	35,549	41,539	45,886	64,626
Machinery & equipment	74,733	87,844	93,069	99,001	132,127
Land and buildings	207,814	233,435	253,252	280,080	367,010
Co-op investment	5,970	5,439	8,301	8,186	12,723
Accounts receivable	10,338	10,866	20,992	18,651	24,789
Cash & checking accounts	1,929	2,476	4,846	5,012	3,992
Total Farm Assets	$428,339	$497,519	$541,719	$598,145	$795,633
Savings accounts	4,607	4,087	3,571	3,327	2,497
Cash value life insurance	3,013	7,869	2,509	4,274	3,698
Stocks and bonds	3,118	4,885	1,465	5,580	4,771
Nonfarm real estate	2,058	250	7,236	15,656	15,442
Auto (personal share)	561	1,206	816	1,134	2,131
All other	3,191	3,780	2,942	4,281	9,901
Total Nonfarm Assets	$ 16,548	$ 22,077	$ 18,539	$ 34,252	$ 38,440
TOTAL ASSETS	$444,887	$519,596	$560,258	$632,397	$834,073
Liabilities					
Real estate mortgage	$ 80,379	$109,060	$105,786	$119,664	$172,762
Liens on cattle & equipt.	52,117	62,451	74,989	70,337	129,739
Installment contracts	2,163	3,762	2,755	2,366	3,763
Other loans over 7 years	3,663	719	2,184	687	10,191
Other loans 1 to 7 years	6,754	10,783	3,793	1,666	5,731
Other loans less than 1 year	828	2,184	1,895	625	1,995
Feed store & other accounts	1,846	5,361	3,540	1,902	2,088
Total Farm Liabilities	$147,750	$194,320	$194,942	$197,247	$326,269
Nonfarm Liabilities	276	324	3,476	687	1,724
TOTAL LIABILITIES	$148,026	$194,644	$198,418	$197,934	$327,993
Farm Net Worth (Equity Capital)	$280,589	$303,199	$346,777	$400,898	$469,364
FAMILY NET WORTH	$296,861	$324,952	$361,840	$434,463	$506,080
Financial Measures					
Percent equity	67%	63%	65%	69%	61%
Farm debt per cow	$1,572	$1,799	$1,572	$1,379	$1,623
Available for debt service and living	$44,922	$49,231	$59,244	$69,078	$85,141
Scheduled annual debt payment	$27,466	$33,068	$36,631	$31,485	$56,418
Scheduled debt payment/cow	$292	$306	$295	$220	$281
Scheduled debt payment as percent of milk check	21%	21%	21%	15%	19%

Table 57. COMPARISON OF FARMS BY TYPE OF BARN AND HERD SIZE
527 New York Dairy Farms, 1978

Item	Herd Size (Number Cows)				
	Under 55	55-69	70-99	100-149	150 & Over
Number of farms					
Free stall	21	26	54	52	29
Other	208	78	48	11	0
Number of men					
Free stall	2.0	2.2	2.7	3.6	5.4
Other	1.8	2.3	2.8	3.6	--
Land & bldgs/cow					
Free stall	$2,600	$2,240	$2,200	$2,000	$1,800
Other	$2,600	$2,400	$2,600	$2,300	--
Tons hay crops/acre					
Free stall	1.9	2.5	2.6	2.5	2.6
Other	2.3	2.3	2.8	2.7	--
Lbs. milk sold/cow					
Free stall	13,500	14,000	14,300	14,100	13,600
Other	13,600	14,300	14,100	14,900	--
Lbs. milk sold/man					
Free stall	310,400	392,300	434,800	468,000	489,200
Other	303,600	367,600	403,700	473,800	--
Labor cost/cow					
Free stall	$297	$274	$267	$253	$274
Other	$301	$278	$273	$267	--
Machinery cost/cow					
Free stall	$313	$290	$309	$276	$274
Other	$286	$298	$304	$282	--
Veterinary cost/cow					
Free stall	$25	$31	$28	$28	$24
Other	$27	$24	$24	$27	--
Feed & crop expense/cow					
Free stall	$485	$558	$558	$537	$537
Other	$511	$518	$528	$567	--
Debt/cow					
Free stall	$1,700	$1,900	$1,700	$1,600	$1,600
Other	$1,800	$1,800	$1,700	$1,600	--
Labor & mgt. income/op.					
Free stall	$18,830	$18,300	$22,700	$29,700	$45,387
Other	$12,477	$18,300	$16,223	$35,281	--

A total of 182 of the 527 farms in this study reported having free stall barns. A comparison has been made by size of herd and type of barn for selected business factors.

Table 58. SELECTED BUSINESS FACTORS BY MILKING SYSTEMS
527 New York Dairy Farms, 1978

Item	Bucket and Carry	Dumping Station	Pipe-line	Herring-bone Parlor	Other Parlors
Number of farms	11	145	203	133	35
Percent of farms	2%	28%	38%	25%	7%
Capital Investment (end of year)					
Livestock	$ 47,820	$ 51,608	$ 67,187	$112,195	$ 90,589
Feed & supplies	15,248	11,924	20,646	37,629	28,624
Machinery & equipment	38,173	38,060	57,793	87,078	67,557
Land & buildings	118,500	117,084	150,980	234,778	179,387
TOTAL INVESTMENT	$219,741	$218,676	$296,606	$471,680	$366,157
Financial Summary					
Total Farm Receipts	$ 90,136	$ 84,620	$123,479	$219,735	$173,434
Total Farm Expenses	80,730	70,222	102,472	180,775	141,110
Labor & Mgt. Income	$ 9,406	$ 14,398	$ 21,007	$ 38,960	$ 32,324
Number of operators	(11) 1.0	(160) 1.10	(244) 1.2	(182) 1.37	(41) 1.17
LABOR & MGT. INC/OPR	$ 9,406	$ 13,053	$ 17,491	$ 28,480	$ 27,604
Size of Business					
Number of cows	48	46	60	111	85
Number of heifers	33	31	42	77	63
Lbs. of milk sold	633,300	580,100	880,900	1,532,700	1,213,300
Man equivalent	1.8	1.9	2.2	3.4	2.8
Crop acres	132	149	191	326	261
Rates of Production					
Milk sold/cow (lbs.)	13,200	12,600	14,700	13,800	14,300
Tons hay crops/acre	2.2	2.2	2.6	2.4	2.6
Tons corn silage/acre	13.7	12.9	14.2	13.8	14.4
Labor Efficiency					
Cows per man	26	24	28	32	31
Lbs. milk sold/man	346,100	302,100	405,900	448,200	441,200
Costs					
Feed purchased/cow	$494	$387	$417	$411	$433
% Feed is of milk receipts	35%	30%	27%	28%	29%
Machinery cost/cow	$281	$269	$311	$276	$305
Labor cost/cow	$292	$283	$280	$265	$263
Capital Efficiency					
Investment/man	$120,100	$113,900	$136,700	$137,900	$133,100
Investment/cow	$4,600	$4,700	$4,800	$4,200	$4,200
Land & bldgs/cow	$2,500	$2,500	$2,400	$2,100	$2,000
Machinery inv/cow	$800	$810	$930	$770	$800
Other					
Price/cwt. milk sold	$10.57	$10.31	$10.43	$10.66	$10.52

Table 59. FARM BUSINESS SUMMARIES FOR INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS
527 New York Dairy Farms, 1978

Item	Averages for: 429 Individuals		89 Partnerships		8 Corporations	
CAPITAL INVESTMENT						
	1/1/78	1/1/79	1/1/78	1/1/79	1/1/78	1/1/79
Livestock	$ 52,255	$ 68,680	$ 73,715	$100,351	$112,940	$152,309
Feed & supplies	17,106	21,291	25,832	28,912	44,532	45,091
Machinery & equipment	49,984	56,071	67,012	75,797	92,172	95,129
Land & buildings	140,372	149,876	189,249	206,084	414,765	440,693
TOTAL INVESTMENT	$259,717	$295,918	$355,808	$411,144	$664,409	$733,172
EXPENSES						
Labor						
Hired	$ 8,175		$ 9,496		$ 23,209	
Feed						
Dairy concentrate	26,621		38,591		48,065	
Hay and other	1,263		1,678		12,485	
Machinery						
Machine hire	726		1,182		4,924	
Machinery repair	4,988		7,270		14,581	
Auto expense	342		396		801	
Gas and oil	2,949		4,425		9,156	
Livestock						
Purchased animals	3,480		3,546		4,052	
Breeding fees	1,170		1,748		2,524	
Veterinary, medicine	1,700		2,417		3,916	
Milk marketing	2,515		4,178		8,214	
Other livestock expense	3,363		4,651		6,678	
Crops						
Fertilizer and lime	4,662		6,876		17,234	
Seeds and plants	1,579		2,443		4,756	
Spray and other	1,094		1,986		3,491	
Real Estate						
Land, bldg., fence repair	1,647		2,541		5,353	
Taxes	2,344		3,272		9,480	
Insurance	1,657		2,783		4,648	
Rent	1,158		2,413		3,789	
Other						
Telephone (farm share)	392		483		1,264	
Electricity (farm share)	1,716		2,498		3,586	
Interest paid	7,563		9,405		22,561	
Miscellaneous	1,115		1,976		5,254	
TOTAL CASH EXPENSES	$ 82,229		$115,753		$220,021	
Machinery depreciation	5,823		8,243		10,193	
Building depreciation	2,703		3,416		7,998	
Unpaid labor	1,700		425		--	
Interest on farm equity at 7 percent	13,381		20,225		31,796	
Decrease in feed & supplies	--		--		--	
TOTAL FARM EXPENSES	$105,836		$148,062		$270,008	

Table 59. FARM BUSINESS SUMMARIES FOR INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS
contd. 527 New York Dairy Farms, 1978

Item	Averages for: 429 Individuals	89 Partnerships	8 Corporations
RECEIPTS			
Milk sales	$ 93,371	$136,921	$234,827
Crop sales	814	935	344
Dairy cattle sold	7,994	11,977	18,340
Livestock sales	1,907	3,098	3,501
Gas tax refund	124	158	243
Government payments	913	1,335	1,807
Work off farm	73	12	--
Custom machine work	193	203	362
Miscellaneous	981	1,676	3,182
TOTAL CASH RECEIPTS	$106,370	$156,315	$262,606
Increase in livestock	16,425	26,636	39,369
Increase in feed & supplies	4,185	3,080	559
TOTAL FARM RECEIPTS	$126,980	$186,031	$302,534
FINANCIAL SUMMARY			
Total Cash Receipts	$106,370	$156,315	$262,606
Total Cash Expenses	82,229	115,753	220,021
NET FARM CASH FLOW	$ 24,141	$ 40,562	$ 42,585
Total Farm Receipts	$126,980	$186,031	$302,534
Total Farm Expenses	105,836	148,062	270,008
LABOR & MGT. INCOME/FARM	$ 21,102	$ 37,969	$ 32,526
Number of operators	(429) 1.0	(186) 2.09	(20) 2.5
LABOR & MGT. INCOME/OPERATOR	$ 21,102	$ 18,176	$ 13,010
BUSINESS FACTORS			
Man equivalent	2.3	3.1	4.8
Number of cows	65	92	147
Number of heifers	45	65	108
Acres of hay crops	122	154	184
Acres of corn silage	58	83	130
Total acres of crops	201	277	414
Lbs. of milk sold	895,000	1,277,700	2,161,100
Lbs. of milk sold/cow	13,800	13,900	14,700
Tons hay crops/acre	2.4	2.5	2.8
Tons corn silage/acre	13.7	14.0	14.0
Cows per man	28	30	31
Lbs. of milk sold/man	384,100	414,840	455,000
% Feed is of milk sales	29%	28%	20%
Feed & crop expense/cwt. milk	$3.79	$3.91	$3.40
Fertilizer & lime/crop acre	$23	$25	$42
Machinery cost/cow	$285	$288	$314
Av. price/cwt. milk	$10.43	$10.72	$10.87

Table 60. COMPARISON OF FARM BUSINESS SUMMARIES FOR 1977 AND 1978
Same 365 New York Dairy Farms

Item	Averages 1977		Averages 1978	
CAPITAL INVESTMENT				
	1/1/77	1/1/78	1/1/78	1/1/79
Livestock	$ 51,220	$ 54,127	$ 55,872	$ 74,908
Feed & supplies	19,878	19,701	19,358	23,289
Machinery & equipment	48,170	53,152	54,120	60,594
Land & buildings	135,632	145,756	149,646	159,790
TOTAL INVESTMENT	$254,900	$272,736*	$278,996*	$318,581
EXPENSES				
Labor				
Hired	$ 7,557		$ 8,626	
Feed				
Dairy concentrate	26,603		28,536	
Hay and other	1,110		1,645	
Machinery				
Machine hire	644		939	
Machinery repair	4,399		5,279	
Auto expense	355		362	
Gas and oil	2,905		3,250	
Livestock				
Purchased animals	2,533		3,075	
Breeding fees	1,128		1,306	
Veterinary, medicine	1,617		1,863	
Milk marketing	2,330		2,709	
Other livestock expense	3,037		3,557	
Crops				
Fertilizer and lime	4,493		5,395	
Seeds and plants	1,445		1,816	
Spray and other	1,173		1,299	
Real Estate				
Land, building, fence repair	1,475		1,912	
Taxes	2,507		2,592	
Insurance	1,667		1,793	
Rent	1,223		1,352	
Other				
Telephone (farm share)	373		435	
Electricity (farm share)	1,645		1,832	
Interest paid	6,749		7,617	
Miscellaneous	1,028		1,321	
TOTAL CASH EXPENSES	$77,996		$ 88,511	
Machinery depreciation	$ 5,469		$ 6,000	
Building depreciation	2,684		3,023	
Unpaid labor	1,050**		1,275**	
Interest on farm equity @ 7%	12,560		15,348	
Decrease in livestock	177		--	
TOTAL FARM EXPENSES	$99,936		$114,157	

* Operators often make adjustments in values "between" years.
** Unpaid labor valued at $400 in 1977 and $425 in 1978.

Table 60. contd. COMPARISON OF FARM BUSINESS SUMMARIES FOR 1977 AND 1978
Same 365 New York Dairy Farms

Item	Averages 1977	Averages 1978
RECEIPTS		
Milk sales	$ 92,200	$103,020
Crop sales	566	824
Dairy cattle sold	6,536	8,807
Livestock sales	1,358	2,155
Gas tax refund	155	142
Government payments	410	932
Work off farm	88	61
Custom machine work	129	223
Miscellaneous	1,102	1,087
TOTAL CASH RECEIPTS	$101,544	$117,251
Increase in livestock	2,907	19,036
Increase in feed & supplies	--	3,931
TOTAL FARM RECEIPTS	$104,451	$140,218
FINANCIAL SUMMARY		
Total Cash Receipts	$101,544	$117,251
Total Cash Expenses	77,996	88,511
NET FARM CASH FLOW	$ 23,548	$ 28,740
Total Farm Receipts	$104,451	$140,218
Total Farm Expenses	99,936	114,157
LABOR & MGT. INCOME/FARM	$ 4,515	$ 26,061
Number of operators	(435) 1.19	(443) 1.21
LABOR & MGT. INCOME/OPERATOR	$ 3,791	$ 21,485
BUSINESS FACTORS		
Man equivalent	2.3	2.3
Number of cows	70	70
Number of heifers	51	50
Acres of hay crops	121	127
Acres of corn silage	58	63
Total acres of crops	212	217
Lbs. of milk sold	943,300	985,500
Lbs. of milk sold/cow	13,500	14,100
Tons hay crops/acre	2.2	3.1
Tons corn silage/acre	13.8	13.9
Cows per man	30	30
Lbs. of milk sold/man	404,800	423,000
% Feed is of milk sales	29%	28%
Feed and crop expense/cwt. milk	$3.57	$3.76
Fertilizer & lime/crop acre	$21	$25
Machinery cost/cow	$247	$284
Av. price/cwt. milk	$9.77	$10.45

Table 61. SELECTED FARM BUSINESS SUMMARY FACTORS
New York Dairy Farms, Selected Years 1958-1978

Item	Year			
	1958	1968	1973	1978
Number of farms	559	568	609	527
Financial Summary				
Average capital invested	$45,062	$107,854	$195,322	$322,360
Total farm receipts	$21,512	$53,247	$84,682	$139,700
Total farm expenses	$15,012	$37,717	$72,570*	$115,443*
Labor income per operator	$3,817	$8,724	$10,178	$20,047
Size of Business				
Number of cows	33	58	69	71
Pounds of milk sold	310,900	715,200	851,900	979,500
Crop acres	104	155	198	217
Man equivalent	1.8	2.1	2.2	2.4
Total work units	523	692	750	780
Rates of Production				
Milk sold per cow	9,420	12,300	12,350	13,800
Tons hay crops per acre	2.3	2.8	2.6	2.4
Tons corn silage per acre	10	14	13	14
Labor Efficiency				
Cows per man	18	28	32	29
Pounds milk sold per man	172,700	340,600	392,600	404,800
Work units per man	291	330	346	322
Cost Control Factors				
Machinery cost per cow	$109	$151	$183	$286
Machinery cost/cwt. milk	$1.16	$1.22	$1.49	$2.07
Feed bought per cow	$109	$163	$278	$408
Feed bought/cwt. milk	$1.29	$1.32	$2.25	$2.96
Feed & crop expense/cwt. milk	$1.69	$1.69	$2.81	$3.81
% Feed is of milk receipts	28%	24%	31%	28%
Capital Efficiency				
Total investment per man	$25,839	$53,302	$95,667	$133,207
Total investment per cow	$1,409	$1,930	$3,009	$4,480
Machinery investment/cow	$292	$435	$527	$833
Total investment/cwt. milk	$15	$16	$24	$33
Other				
Price per cwt. milk sold	$4.68	$5.52	$7.30	$10.51
Acres hay crops	76	90	116	128
Acres corn silage	14	41	57	60
Total acres in crops/cow	3.2	2.7	2.9	3.1
Fertilizer & lime exp/crop acre	$7	$11	$16	$24
Farm income per cow	$197	$268	$262	$382
Labor income per cow	$129	$175	$176	$341

* Includes interest paid, interest on equity capital, and building depreciation which were not included in total farm expenses prior to 1973. In earlier years, interest was charged on all capital and deducted from the net farm income and depreciation was included with inventory changes.

BUSINESS SUMMARY OF FARMS WITH OVER 200 COWS
9 New York Dairy Farms, 1978

CAPITAL INVESTMENT	1/1/78	1/1/79
Livestock	$193,786	$ 270,219
Feed & supplies	77,800	94,809
Machinery & equipment	145,099	168,481
Land & buildings	477,404	519,892
TOTAL INVESTMENT	$894,089	$1,053,401

EXPENSES	
Labor	
Hired	$ 63,929
Feed	
Dairy concentrate	98,878
Hay and other	10,147
Machinery	
Machine hire	6,249
Machinery repair	19,598
Auto expense	533
Gas and oil	11,293
Livestock	
Purchased animals	11,239
Breeding fees	3,720
Veterinary, medicine	6,653
Milk marketing	12,872
Other livestock expense	12,990
Crops	
Lime and fertilizer	25,439
Seeds and plants	7,029
Spray and other	6,505
Real Estate	
Land, building, fence repair	7,646
Taxes	10,188
Insurance	6,705
Rent	7,835
Other	
Telephone (farm share)	788
Electricity (farm share)	6,604
Interest paid	25,798
Miscellaneous	7,954
TOTAL CASH EXPENSES	$370,592
Machinery depreciation	19,269
Building depreciation	9,095
Unpaid labor	--
Interest on farm equity @ 7%	43,124
TOTAL FARM EXPENSES	$442,080

RECEIPTS	
Milk sales	$397,297
Crop sales	3,222
Dairy cattle sold	28,690
Livestock sales	7,874
Gas tax refund	357
Government payments	4,097
Work off farm	--
Custom machine work	11
Miscellaneous	8,337
TOTAL CASH RECEIPTS	$449,885
Increase in livestock	76,433
Increase in feed & supplies	17,009
TOTAL FARM RECEIPTS	$543,327

FINANCIAL SUMMARY	
Total Cash Receipts	$449,885
Total Cash Expenses	370,592
NET FARM CASH FLOW	$ 79,293
Total Farm Receipts	$543,327
Total Farm Expenses	442,080
LABOR & MGT. INCOME/FARM	$101,247
Number of operators (15)	1.67
LABOR & MGT. INCOME/OPERATOR	$ 60,773

BUSINESS FACTORS	
Man equivalent	7.6
Number of cows	267
Number of heifers	177
Acres of hay crops	305
Acres of corn silage	246
Total acres of crops	692
Lbs. of milk sold	3,472,500
Lbs. of milk sold/cow	13,000
Tons hay crops/acre	3.1
Tons corn silage/acre	15.8
Lbs. of milk sold/man	458,100
Cows per man	35
% feed is of milk sales	25%
Feed & crop exp/cwt. milk	$3.97
Lime & fertilizer/crop acre	$37
Machinery cost/cow	$254
Av. price/cwt. milk	$11.44

FARM BUSINESS SUMMARY
29 New York Dairy-Cash Crop Farms,* 1978

CAPITAL INVESTMENT	1/1/78	1/1/79
Livestock	$ 76,493	$103,392
Feed & supplies	43,226	47,639
Machinery & equipt.	88,571	98,947
Land & buildings	261,863	281,635
TOTAL INVESTMENT	$470,153	$531,613

EXPENSES	
Labor	
Hired	$ 18,905
Feed	
Dairy concentrate	28,417
Hay and other	858
Machinery	
Machine hire	1,686
Machinery repair	9,599
Auto expense	223
Gas and oil	5,968
Livestock	
Purchased animals	7,586
Breeding fees	1,450
Veterinary, medicine	2,470
Milk marketing	3,352
Other livestock expense	6,988
Crops	
Fertilizer and lime	11,498
Seeds and plants	4,620
Spray and other	4,388
Real Estate	
Land, building, fence repair	1,858
Taxes	4,472
Insurance	2,298
Rent	3,094
Other Cash Expense	
Telephone (farm share)	473
Electricity (farm share)	2,431
Interest paid	11,887
Miscellaneous	2,913
TOTAL CASH EXPENSES	$137,434
Machinery depreciation	11,714
Building depreciation	5,609
Unpaid labor	850
Interest on farm equity @ 7%	26,373
Decrease in feed & supplies	--
TOTAL FARM EXPENSES	$181,980

RECEIPTS	
Milk sales	$133,082
Crop sales	25,894
Dairy cattle sold	11,272
Other livestock sales	3,709
Gas tax refund	302
Government payments	2,977
Work off farm	62
Custom machine work	543
Miscellaneous	2,480
TOTAL CASH RECEIPTS	$180,321
Increase in livestock	26,899
Increase in feed & supplies	4,413
TOTAL FARM RECEIPTS	$211,633

FINANCIAL SUMMARY	
Total Cash Receipts	$180,321
Total Cash Expenses	137,434
NET FARM CASH FLOW	$ 42,887
Total Farm Receipts	$211,633
Total Farm Expenses	181,980
LABOR & MGT. INCOME/FARM	$ 29,653
Number of operators (43)	1.48
LABOR & MGT. INCOME/OPERATOR	$ 20,009

BUSINESS FACTORS	
Man equivalent	3.3
Number of cows	91
Number of heifers	72
Acres of hay crops	133
Acres of corn silage	70
Total acres of crops	381
(Acres cropland rented)	(114)
Lbs. of milk sold	1,295,600
Lbs. milk sold/cow	14,240
Tons hay crops/acre	3.0
Tons corn silage/acre	15.2
Cows per man	27
Lbs. of milk sold/man	389,100
% Feed is of milk receipts	21%
Feed & crop exp./cwt. milk	$3.78
Fertilizer & lime/crop acre	$30
Machinery cost/cow	$393
Av. price/cwt. milk	$10.27

* Farms where crop sales amounted to 10 percent or more of milk sales.

FARM BUSINESS SUMMARY
54 New York Dairy-Renter Farms,* 1978

CAPITAL INVESTMENT

	1/1/78	1/1/79
Livestock	$ 53,631	$ 70,264
Feed & supplies	14,023	17,045
Machinery & equipt.	42,992	49,509
Land & buildings	7,552	8,780
TOTAL INVESTMENT	$118,198	$145,598

EXPENSES

Labor		
Hired		$ 7,275
Feed		
Dairy concentrate		25,986
Hay and other		1,952
Machinery		
Machine hire		1,098
Machinery repair		4,369
Auto expense		223
Gas and oil		2,977
Livestock		
Purchased animals		5,477
Breeding fees		1,156
Veterinary, medicine		2,079
Milk marketing		4,192
Other livestock expense		4,240
Crops		
Fertilizer and lime		3,876
Seeds and plants		1,648
Spray and other		1,130
Real Estate		
Land, building, fence repair		1,357
Taxes		801
Insurance		1,270
Rent		8,645
Other Cash Expense		
Telephone (farm share)		325
Electricity (farm share)		1,840
Interest paid		4,080
Miscellaneous		1,021
TOTAL CASH EXPENSES		$ 87,017
Machinery depreciation		5,245
Building depreciation		104
Unpaid labor		850
Interest on farm equity @ 7%		7,453
TOTAL FARM EXPENSES		$100,669

RECEIPTS

Milk sales	$ 98,735
Crop sales	789
Dairy cattle sold	10,915
Other livestock sales	1,722
Gas tax refund	133
Government payments	735
Work off farm	35
Custom machine work	223
Miscellaneous	742
TOTAL CASH RECEIPTS	$114,029
Increase in livestock	16,633
Increase in feed & supplies	3,022
TOTAL FARM RECEIPTS	$133,684

FINANCIAL SUMMARY

Total Cash Receipts	$114,029
Total Cash Expenses	87,017
NET FARM CASH FLOW	$ 27,012
Total Farm Receipts	$133,684
Total Farm Expenses	100,669
LABOR & MGT. INCOME/FARM	$ 33,015
Number of operators (65)	1.24
LABOR & MGT. INCOME/OPERATOR	$ 26,625

BUSINESS FACTORS

Man equivalent	2.3
Number of cows	66
Number of heifers	43
Acres of hay crops	103
Acres of corn silage	53
Total acres of crops	182
Lbs. of milk sold	923,200
Lbs. milk sold/cow	14,000
Tons hay crops/acre	2.4
Tons corn silage/acre	13.3
Cows per man	28
Lbs. of milk sold/man	396,200
% Feed is of milk sales	26%
Feed & crop exp./cwt. milk	$3.54
Fertilizer & lime/crop acre	$21
Machinery cost/cow	$260
Av. price/cwt. milk	$10.69

* A farm was classified as renter if no real estate was owned or if all cropland was rented.

FARM BUSINESS SUMMARY
Top 10 Percent of the Farms by Labor & Management Income
53 New York Dairy Farms, 1978

CAPITAL INVESTMENT	1/1/78	1/1/79
Livestock	$ 85,556	$125,686
Feed & supplies	32,500	44,708
Machinery & equipt.	73,556	85,325
Land & buildings	205,756	218,864
TOTAL INVESTMENT	$397,368	$474,583

EXPENSES	
Labor	
Hired	$ 18,340
Feed	
Dairy concentrate	42,171
Hay and other	1,844
Machinery	
Machine hire	1,461
Machinery repair	7,701
Auto expense	308
Gas and oil	4,754
Livestock	
Purchased animals	4,176
Breeding fees	2,018
Veterinary, medicine	2,922
Milk marketing	4,826
Other livestock expense	5,736
Crops	
Fertilizer and lime	7,980
Seeds and plants	2,903
Spray and other	2,377
Real Estate	
Land, building, fence repair	2,788
Taxes	3,453
Insurance	2,385
Rent	2,316
Other Cash Expense	
Telephone (farm share)	482
Electricity (farm share)	2,539
Interest paid	10,966
Miscellaneous	1,939
TOTAL CASH EXPENSES	$136,385
Machinery depreciation	7,291
Building depreciation	4,095
Unpaid labor	850
Interest on farm equity @ 7%	23,337
TOTAL FARM EXPENSES	$171,958

RECEIPTS	
Milk sales	$158,610
Crop sales	1,411
Dairy cattle sold	13,689
Other livestock sales	3,731
Gas tax refund	180
Government payments	1,023
Work off farm	76
Custom machine work	250
Miscellaneous	1,782
TOTAL CASH RECEIPTS	$180,752
Increase in livestock	40,130
Increase in feed & supplies	12,208
TOTAL FARM RECEIPTS	$233,090

FINANCIAL SUMMARY	
Total Cash Receipts	$180,752
Total Cash Expenses	136,385
NET FARM CASH FLOW	$ 44,367
Total Farm Receipts	$233,090
Total Farm Expenses	171,958
LABOR & MGT. INCOME/FARM	$ 61,132
Number of operators (58)	1.1
LABOR & MGT. INCOME/OPERATOR	$ 55,879

BUSINESS FACTORS	
Man equivalent	3.2
Number of cows	103
Number of heifers	77
Acres of hay crops	150
Acres of corn silage	103
Total acres of crops	302
(Acres cropland rented)	(108)
Lbs. of milk sold	1,499,200
Lbs. of milk sold/cow	14,600
Tons hay crops/acre	2.7
Tons corn silage/acre	14.7
Cows per man	32
Lbs. of milk sold/man	472,900
% Feed is of milk receipts	27%
Feed & crop exp./cwt. milk	$3.70
Fertilizer & lime/crop acre	$26
Machinery cost/cow	$263
Av. price/cwt. milk	$10.58

FARM BUSINESS SUMMARY
Average of 527 New York Dairy Farms, 1978

CAPITAL INVESTMENT

	1/1/78	1/1/79
Livestock	$ 56,895	$ 75,409
Feed & supplies	19,007	22,949
Machinery & equipt.	53,521	59,993
Land & buildings	153,032	164,011
TOTAL INVESTMENT	$282,455	$322,362

EXPENSES

Labor	
Hired	$ 8,724
Feed	
Dairy concentrate	28,994
Hay and other	1,501
Machinery	
Machine hire	867
Machinery repair	5,522
Auto expense	359
Gas and oil	3,293
Livestock	
Purchased animals	3,493
Breeding fees	1,290
Veterinary, medicine	1,855
Milk marketing	2,893
Other livestock expense	3,630
Crops	
Lime and fertilizer	5,232
Seeds and plants	1,772
Spray and other	1,282
Real Estate	
Land, building, fence repair	1,856
Taxes	2,610
Insurance	1,808
Rent	1,408
Other	
Telephone (farm share)	421
Electricity (farm share)	1,877
Interest paid	8,132
Miscellaneous	1,324
TOTAL CASH EXPENSES	$ 90,143
Machinery depreciation	6,301
Building depreciation	2,906
Unpaid labor	1,275
Interest on farm equity @ 7%	14,818
TOTAL FARM EXPENSES	$115,443

RECEIPTS

Milk sales	$102,934
Crop sales	832
Dairy cattle sold	8,830
Livestock sales	2,133
Gas tax refund	131
Government payments	996
Work off farm	61
Custom machine work	197
Miscellaneous	1,130
TOTAL CASH RECEIPTS	$117,244
Increase in livestock	18,514
Increase in feed & supplies	3,942
TOTAL FARM RECEIPTS	$139,700

FINANCIAL SUMMARY

Total Cash Receipts	$117,244
Total Cash Expenses	90,143
NET FARM CASH FLOW	$ 27,101
Total Farm Receipts	$139,700
Total Farm Expenses	115,443
LABOR & MGT. INCOME/FARM	$ 24,257
Number of operators (638)	1.21
LABOR & MGT. INCOME/OPERATOR	$ 20,047

BUSINESS FACTORS

Man equivalent	2.4
Number of cows	71
Number of heifers	49
Acres of hay crops	128
Acres of corn silage	60
Total acres of crops	217
(Acres cropland rented)	(58)
Lbs. of milk sold	979,500
Lbs. of milk sold/cow	14,000
Tons hay crops/acre	2.4
Tons corn silage/acre	13.9
Lbs. of milk sold/man	404,800
Cows per man	29
% Feed is of milk sales	28%
Feed & crop exp./cwt. milk	$3.81
Lime & fertilizer/crop acre	$24
Machinery cost/cow	$286
Av. price/cwt. milk	$10.51

FARM BUSINESS SUMMARY
Average Per Cow, 527 New York Dairy Farms, 1978

CAPITAL INVESTMENT	1/1/78	1/1/79
Livestock	$ 801	$1,062
Feed & supplies	268	323
Machinery & equipt.	754	845
Land & buildings	2,155	2,310
TOTAL INVESTMENT	$3,978	$4,540

EXPENSES	
Labor	
Hired	$ 123
Feed	
Dairy concentrate	408
Hay and other	21
Machinery	
Machine hire	12
Machinery repair	78
Auto expense	5
Gas and oil	46
Livestock	
Purchased animals	49
Breeding fees	18
Veterinary, medicine	26
Milk marketing	41
Other livestock expense	51
Crops	
Lime and fertilizer	74
Seeds and plants	25
Spray and other	18
Real Estate	
Land, building, fence repair	26
Taxes	37
Insurance	25
Rent	20
Other	
Telephone (farm share)	6
Electricity (farm share)	26
Interest paid	115
Miscellaneous	19
TOTAL CASH EXPENSES	$1,269
Machinery depreciation	89
Building depreciation	41
Unpaid labor	18
Interest on farm equity @ 7%	209
TOTAL FARM EXPENSES	$1,626

RECEIPTS	
Milk sales	$1,450
Crop sales	11
Dairy cattle sold	124
Livestock sales	30
Gas tax refund	2
Government payments	14
Work off farm	1
Custom machine work	3
Miscellaneous	16
TOTAL CASH RECEIPTS	$1,651
Increase in livestock	261
Increase in feed & supplies	56
TOTAL FARM RECEIPTS	$1,968

FINANCIAL SUMMARY	
Total Cash Receipts	$1,651
Total Cash Expenses	1,269
NET FARM CASH FLOW	$ 382
Total Farm Receipts	$1,968
Total Farm Expenses	1,626
LABOR & MGT. INCOME/FARM	$ 342
Number of operators (638)	1.21
LABOR & MGT. INCOME/OPERATOR	$282

BUSINESS FACTORS	
Man equivalent	.034
Number of cows	(71)
Number of heifers	.69
Acres of hay crops	1.8
Acres of corn silage	.8
Total acres of crops	3.1
Lbs. of milk sold/cow	14,000
Tons hay crops/cow	4.4
Tons corn silage/cow	12.4
Lbs. of milk sold/man	404,750
% Feed is of milk sales	28%
Feed & crop exp./cow	$525
Lime & fertilizer/cow	$74
Machinery cost/cow	$286
Av. price/cwt. milk	$10.51
Debt per cow	$1,708
Debt payment/cow	$292